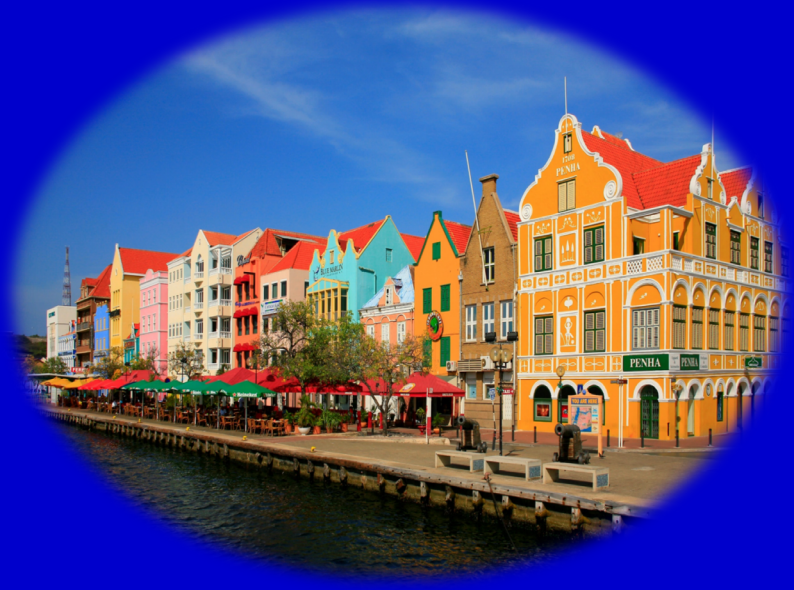
VISION PAPER
SMART NATION PLATFORM CURAÇAO

A STRATEGIC VISION FOR THE GOVERNMENT OF CURAÇAO



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A smart nation uses digital technology to improve the lives of its people…….

I. INTRODUCTION

Countries and cities which do not pay sufficient attention to the ongoing digital revolution are at risk of falling behind in the regional and international competition with all the negative consequences for the development of their economy and the society in general. In this regard the Council of Ministers of Curaçao adopted an Innovation Policy on March 22, 2017, to promote sustainable economic development by stimulating innovative projects and processes that should strengthen existing activities in Curaçao, promote economic diversification, and improve the regional competitive position of Curaçao.

However, this was clearly not enough. As increasingly countries and cities (including businesses) are investing in and implementing smart technologies to prepare them for service delivery and competition in the future, it was felt that a more comprehensive national approach was needed to take advantage of the ongoing digital revolution. Consequently, one of the objectives taken up in (Chapter 4 of) the 2017-2021 coalition agreement ("Developing Curaçao's Potential") is the realization of the capital of Curaçao, Willemstad, as a "Smart City". This implies that the Government envisions, as a first step, for Willemstad to be developed into a center for, among other things, education, culture, recreation and business with a modern technological infrastructure and “state of the art" information and communication technology (ICT). Looking further ahead and extending the vision for Willemstad, Curaçao as a country should be progressively developed into a Smart Nation, using the capabilities acquired in the developing of its capital into a smart city.

The vision of Curaçao as a "Smart Nation" is based on the concept of a country using modern ICT-solutions to provide the necessary services to its citizens in policy areas such as: information and communication services, education, health, financial services, energy supply, telecommunications, security, law enforcement, waste management and other vital forms of public and private services. To accomplish this, ICT initiatives and developments in Curaçao can no longer be viewed in isolation. Consequently, from a government policy standpoint and considering above-mentioned vision, the concrete mission is to follow an integrated approach for the further development of Curaçao in the direction of a "Smart Nation". This mission is to be carried out by an inclusive platform consisting of high-level representatives of the public sector, private sector and knowledge institutions (the "triple helix" concept) in Curaçao. In carrying out its mission, the platform is supported by a professional secretariat and a wide group of relevant experts to fulfill the audacious vision of Curaçao as a "Smart Nation".

II. OVERVIEW OF THE NET-BENEFITS OF A SMART NATION

The development of a Smart Nation assumes an increasing effectiveness, speed and quality of the services offered to citizens with less use of public resources (i.e. increased efficiency). Because this also implies a reduction in the operational costs of the Government, while the effectiveness, speed and quality of public services is dramatically increased, it is a win-win situation for both government and citizens (including businesses).

To achieve these objectives, the implementation of a Smart Nation concept assumes effective deployment of a technological infrastructure, including the Internet of Things (IoT), which can provide simple and economically efficient access to public services such as transportation, parking, education, utilities and public lighting, surveillance and maintenance of public areas, emergency assistance and other health services, as well as other public services. This may trigger all sorts of specific potential public-sector benefits, including:

- more efficient traffic flows and parking management;
- improved electronic communication services and better user experience;
- improved management and protection of public buildings and areas;
- improved energy efficiency, e.g. reduced costs of public lighting;
- better management of public utilities and waste removal;
- better access to education and at lower cost;
- improved public safety related emergency services;
- more effective policing and protection of citizens;
- more effective health services; and
- other worthwhile benefits.

All the above potential benefits and more will be realized with less manpower intervention (with less government expenditures on payroll) by increasingly applying advanced technologies, such as artificial intelligence, cyber-physical systems and robotics. In addition, as with all IoT-related activities, a Smart City or Smart Nation is only made possible by the collection of data, structured as well as unstructured, from all sorts of smart devices and by using censor-technology in relevant places. While undoubtedly, after structured analysis with sophisticated software, this data can be used to increase efficiency and transparency of government operations, the protection of the privacy as well as the security of citizens also remains a serious point of attention for policy makers in the development of a Smart Nation.

III. ASPIRATIONS OF CURAÇAO TO BECOME A SMART NATION

3.1. Setting the right initiatives towards achieving our vision

As exciting as these net-benefits seem to be, there are still significant technical and other non-technical issues to be dealt with and decided upon in dealing with a comprehensive and effective development of a smart nation. The aspirations of Curaçao to become a smart nation altogether with the implementation of innovative and integrated technologies on a national scale is not only technically challenging, but can also be rather expensive to implement and maintain if the plans are not well coordinated and synchronized. This gives rise to many relevant technical, operational, administrative, procedural, legal and political questions to be dealt with by the Government and within the Smart Nation Platform.

It's a task of the Government together with the Platform to establish the right conditions for national development and exemplify the best model of what it means to be smart. Both parties shall recognize and identify the more deliberate champions for economic development, improved living conditions and lasting sustainable change, and in this regard strategically outline the right steps to become a smart nation. It's crucial that smart city processes achieve the right equilibrium between the forces of supply and demand in the smart city context. Using the right investment strategies, public-private-partnerships, and new internal (from within the Government) innovation-focused positions, the right initiatives should be created to establish a statement of direction. This model will enable the right conditions for timely and effective participation by the community as well as increased efficiencies. The private sector can anticipate and leverage on business opportunities with the rise of new smart nation developments.

The vision of Willemstad as a smart city:
"The government will develop and promote economic activities and investments in the downtown area based on the vision for Willemstad in the 21st century ("Smart City"); a city on the world heritage list of UNESCO but with a modern, futuristic, inclusive ecosystem for a vibrant entrepreneurial sector, access to state-of-the-art ICT technology and connectivity, hospitality and modern housing for tourists and locals (especially the younger generation), and a center for education, culture and recreation accessible to the whole population. This development must be the model of how to improve the quality of living in all the other neighborhoods of the island."

The Government envisions, as a first step, for Willemstad to be developed into a center for innovation by strategically identifying and selecting a couple of quick win projects and engage the Platform and its affiliated partners by means of collaboration and co-creation. Inclusiveness of the citizens remains central in all the aspects of the process as the solutions are built around the needs of people they serve. Looking further ahead and extending the vision for Willemstad, Curaçao as a country should be progressively developed into a Smart Nation, using the capabilities acquired in the developing of its capital into a smart city.

To achieve this, the following steps and processes are identified:

1. Problem definition and prioritizing of focus areas. Solutions for problems of fundamental importance are essential;
2. Identify solutions and conduct pilot cases (organize testbed environment);
3. Implement solutions on a limited scope while measuring and adapt;
4. Scale out and build towards a sustainable Smart Nation Curaçao.

The first relevant solution to deal with all the details related to the implementation of the vision and desire to become a smart nation is therefore an effective and collaborative national implementing-organization with a clear mission or mandate. This will be dealt with in the last chapter of the paper. However, the implementing organization is just one of the prior and enabling conditions that must be satisfied to guarantee success in creating a comprehensive smart nation ecosystem. There are many more to consider.

3.2. Prior and enabling conditions

Countries and cities do not become "smart" by accident or without extensive plans to ensure a sustainable development. Several conditions c.q. actions will be critical if a nation is to succeed as a smart city or smart nation developer. These conditions can be divided in prior conditions and enabling (or facilitating) conditions. Together these requirements will guide the Platform in the creation of a Smart Nation ecosystem.

Although there may be more, below we will identify some critical examples in each category of conditions for developing a smart nation ecosystem.

Prior conditions are those requirements and actions that must be in place before the Smart Nation-project is undertaken. These include:

1. Innovations that will constitute a new order of things in a country or city require the existence of an innovation mindset and effective incentives for undertaking of innovation or technological advancement. Smart system developers should

generally be inclined to explore, create and/or adopt smart solutions, therein facilitated by an effective public-sector sponsored incentives scheme.

2. The existence of bold political leadership and effective senior and technical management, including project management capabilities, to aggressively pursue a daunting innovation agenda. In connection with this prior condition, an effective implementing organization should exist to carry the project throughout the distinct phases and cycles until completion of the main components of the smart nation ecosystem, and to prepare the system maintenance modalities.
3. The existence of a long-term strategy or strategic plan, aligning public and private sector goals and objectives, that provide the necessary vision and guidance to developers of the smart nation ecosystem. This will be the overarching statement of principles for all involved.
4. The educational system should (be made to) support the development and adoption of new tools and next generation learning environments.
5. The existence of the necessary funding for the Government to initiate the process of organization, planning, exploration and identification, even before implementation is considered.
6. The existence of effective data capturing systems to gather the necessary structured as well as unstructured data to develop information that leads to better decision-making and planning.

Enabling conditions can be developed or met as the actual implementation of the Smart Nation-project is undertaken. These include:

1. Future building is a creative and iterative process, and certainly not a haphazard one. To achieve a new order of how things will function in the future, and in connection therewith introduce audacious innovations that will tackle wicked problems and challenges, teaming across disciplinary, agency and industry boundaries is strictly necessary. This kind of project (i.e. the creation of a smart nation ecosystem) requires the existence or introduction of structural open dialogue and new collaboration systems among the relevant groups of stakeholders, including new inter-agency cooperation and citizen engagement models.
2. The existence or development of a sense of urgency as part of the tone at the top of the Platform during the implementation of the project. Without a sense of urgency at the top, the stated goals and objectives are only appealing desires. Mentioned sense of urgency is derived from the fundamental believe at the top of the Platform that sometime soon a digital worker or professional won't have to cry out that "you can't do today's job with yesterday's methods and expect to be in business tomorrow". If that occurs, despite all efforts and the objectives of

today, the status of "Curaçao as a Smart Nation" would regretfully not have been achieved as intended.

3. The introduction and maintenance of long term talent development schemes and programs, including technology incubator facilities.
4. The introduction of a coordinated investment program, aligning public sector and private sector investments, that allow the transition to next generation technology and networks.
5. The introduction of necessary policies and implementation of structural advocacy to sustain innovation in all the main pillars for development of a comprehensive smart nation ecosystem.
6. The existence of real-life reference projects, which provide to the community the evidence of actual empirical results compared to mere visions of success. In this way, the need for funding is legitimized by existing success stories.

Network technologies are redefining industries and user experience.
We must understand where the technology is going, or we won't be able to cope with our own future…….

3.3. Roles and responsibilities of the Government

Because of the ongoing digital revolution and the potential of new technologies to solve major challenges that cities and countries are facing all over the world, smart cities and nations are an inevitable phenomenon of the near the future. In this development, the enabling conditions discussed above suggest a prominent role for the Government.

Therefore, the Government has to develop and implement strategies and partnerships to achieve the realization of the intended digital environment and the required investments in new technology. To realize that environment, investments in smart technologies are necessary in several critical areas of life within the society, including: government services, transportation, health, infrastructure management, energy and other utilities. This level of effort implies that the Government has to play several mature roles, while concluding different kinds of partnerships with the private and social sectors. These roles include:

- *the Government as a strategist:*
  In this first role, the Government sets out a clear 'Statement of Direction' for Curaçao as a Smart Nation. The statement finds its subsequent translation into a Smart Nation Development or Strategic Plan, including the stages in which this is to occur. The main question to be answered here is: what is our vision and level of ambition for a Smart Nation, and how do we want to realize this?

- *the Government as an innovator:*
  The Government applies the fundamental principles of innovation in its internal organization and processes to demonstrate its commitment towards innovation, especially the adoption, application, promotion and/or facilitation of smart technologies.

- *the Government as a regulator and protector:*
  The Government creates or changes the necessary laws and regulations and sets standards, to allow new business models and disruptive technologies. Simultaneously, the Government protects the data and interests of citizens and end-users.

- *the Government as a facilitator and enabler:*
  The Government anticipates the direction of new technological innovations and opportunities in the world. It shares information and takes the necessary measures to realize the adoption of smart and disruptive technologies to facilitate vital, resilient and safe infrastructures (such as modern transportation infrastructures, energy grids and digital networks).

In addition, the Government will establish strategic international partnerships to extend our borders in the digital world, share knowledge, seek financing, and align the creation and implementation of innovative solutions. Thereby the Government can position Curaçao as a reference testbed site for pilot projects across the globe.

The Government will also facilitate the building of digital ecosystems by uniting parties that normally do not work together to deliver creative new solutions that neither one of the parties could have realized on their own.

- *the Government as an investor:*
  The Government stimulates investments in innovative solutions by acting as a launching entity for certain critical investments or as an enabler/facilitator of such investments.

- *the Government as a steward:*
  As a steward, the Government creates and guards an environment in which new businesses (i.e. startups) and smart solutions can emerge and grow, even if these disrupt the traditional way of doing things in the market.

- *the Government as an advocate:*
  The Government acts as an active advocate for Curaçao as a Smart Nation and innovative (regional) hub for new businesses and services.

IV. THE MAIN PILLARS FOR A COMPREHENSIVE SMART NATION DEVELOPMENT

4.1. Introduction

A total of six pillars (i.e. policy areas) have been identified as the building blocks for the development of a comprehensive Smart Nation ecosystem in Curaçao. The proposed pillars for the comprehensive development of a Smart Nation ecosystem in Curaçao are graphically identified on the following page of this paper and described in paragraphs 4.2 to 4.7 of this chapter. These policy areas have been selected based on three source documents, namely:

- the Innovation Policy 2017-2021 of the Ministry of Economic Development, as approved by the Council of Ministers on March 22, 2017;
- the National Development Plan of Curaçao 2015-2030 and
- the Sustainable Development Goals (SDG) identified by the United Nations.

Together these source documents provide a representative basis for the identification of the main national policy areas of interest for the development of Curaçao as a Smart Nation.

Each of the policy areas will further on identify specific Sector Innovation Programs (SIPs). These SIPs will comprise a cluster of programs, which will be identified by the stakeholders in an iterative review and adjustment process to address specific needs, problems or issues and/or to programs to support developments towards a Smart Nation. The SIPs are ultimately implemented through specific projects.

The consultation process will eventually result in the release of a 'green paper' on each of the individual pillars or policy areas, followed by a 'white paper' that eventually evolves into a formal policy paper and/or a description of each pillar in the strategic plan to be adopted by the Steering Committee and approved by the Council of Ministers. The strategic plan will identify the stakeholder-institutions that are assigned a coordinating or contributing role within each of the six pillars identified.

Design, creativity and technology
will become the greatest assets of humanity……

THE MAIN PILLARS FOR A COMPREHENSIVE SMART NATION DEVELOPMENT

Pillar #1

EDUCATION AND KNOWLEDGE DEVELOPMENT

Pillar #2

INFRASTRUCTURE, TRANSPORTATION, DATA & SERVICES

Pillar #3

URBAN PLANNING, ENERGY & ENVIRONMENT

Pillar #4

PUBLIC SAFETY AND SECURITY

Pillar #5

SMART DESTINATION FOR LEISURE AND BUSINESS

Pillar #6

HEALTH & WELLNESS

4.2. Education and Knowledge Development (Pillar #1)

In this policy area attention is directed towards education and knowledge development with specific emphasis on the application of modern technologies, data sciences, e-Learning, digital skills, entrepreneurship and the preparation of workers for the jobs of the future. The aim is the preparation of a highly skilled ICT and globally competitive workforce to allow local businesses to effectively compete in a globalized international marketplace.

The Pillar 1-SIPs identified in this policy area will address, among others, the following subject matters:

- Data Sciences and Digital Content;
- E-learning and the development of transnational education;
- Innovation and technology labs;
- R&D, research centers and testbeds;
- Prepare the Future Workforce;
- The formation of digital skills;
- Coding and blockchain;
- Artificial intelligence; and
- The development of a technology-savvy workforce.

Pillar 1-SIPs are implemented through projects such as: ICT in schools, creation of coding programs, Living Labs / Data Science Labs, organization of hackathons and the preparation of teachers in a digital world.

"You can't solve todays problems with yesterday's solutions" …….

4.3. Infrastructure, Transportation, Data and Services (Pillar #2)

This policy area concentrates on the cluster comprising infrastructure, transportation, data and services. The broad scope of this policy area is considered because of the common utilization in these areas of certain applications. Infrastructure covers all civil infrastructure systems needed for transportation of goods, people and data. Digitally upgraded infrastructures move people, goods and data more efficiently and make data-driven services more accessible. An improved digital infrastructure facilitates all kinds of services to be delivered more efficiently over next generation telecommunication networks.

The Pillar 2-SIPs identified in this policy area will address, among others, the following subject matters.

- Sustainable infrastructure planning and Evidence Based Infrastructure;
- Infrastructure management modality;
- Electronic Communications Networks and Services;
- Connectivity, broadband internet, wireless and 5G LTE;
- IoT and censor-technology;
- Machine-to-Machine communications (M2M);
- Mobility, public transportation and traffic management;
- Autonomous cars and unmanned vehicles;
- Ships and smart seaports;
- Aircrafts and smart airports;
- Smart infrastructure
- Smart transportation;
- Data Driven Governance;
- Big Data, Open Data, and Artificial Intelligence;
- Blockchain; and
- National Quality Policy and Infrastructure.

Pillar 2-SIPs are implemented through projects such as: single telecommunications infrastructure, single broadcast infrastructure, Internet Exchange, Free Wi-Fi in public areas, Government Information Architecture, Big Data, Open Data, Curaçao National Socio-Economic Database, World Council on City Data, Google Street Maps, Mobility-on-Demand, “Digital Twin” traffic management system, smart traffic lights and smart roads.

4.4. Urban Planning, Energy and Environment (Pillar #3)

Given the need for a healthy environment and the realization of a "green" society for the citizens of Curaçao, in this policy area, Urban Planning, Energy and the Environment are clustered together based on the concept of a Circular Economy. In this way the right balance can be pursued with advanced urban planning methodologies, while considering developments in smart and alternative energy production. This policy area also includes measures to promote sustainable production, responsible consumption, efficient waste management, adequate pollution monitoring and management, good water management practices and related smart technologies concerning energy conservation and a green environment.

The Pillar 3-SIPs identified in this policy area will address, among others, the following subject matters:

- Evidence-Based Infrastructure;
- Blue Economy;
- Circular Economy;
- Smart energy and green energy solutions;
- Circular waste, recycling and smart waste management;
- Pollution monitoring & control;
- Urban planning and sustainable spatial planning;
- Renewables and alternative energy; and energy storage;
- Smart grid and meters;
- Electric cars, busses and charging stations;
- Sustainable production and (responsible) consumption;
- Ecosystem-based management and adaption, eco-balance, green buildings;
- Sustainable water and waste-water management;
- Pollution and air quality; and
- Eco-diversity.

Pillar 3-SIPs are implemented through projects such as: Advanced Metering Infrastructure, deep sea cooling, wind energy production, solar panel installation at schools, Smart Lighting, Waste-to-Energy conversion, e-Waste and air quality monitoring & measuring systems and devices.

Digital is not a thing anymore, it's like air, its everywhere,
it enhances the human experience, it's an enabler……

4.5. Public Safety and Security (Pillar #4)

A networked society enabling effective communications and information sharing by leveraging on the convergence of surveillance, big data analytics, and mobile technologies offers tremendous opportunities for improving both safety and security of citizens in a digital era. Given the possible cyber security risks and risks for the privacy of data, this policy area will therefore identify all security vulnerabilities. Advanced ICT will enable the Government to protect its citizens and respond faster and more efficiently on (potential) incidents that threaten public safety and security. This section also focuses on protecting the privacy of citizens as information flows through applications and between the various integrated elements of a smart city.

The Pillar 4-SIPs identified in this policy area will address, among others, the following subject matters:

- Public safety;
- Data protection and e-Privacy;
- Cyber-attacks and cyber security;
- Traffic safety; and
- Emergency response, incident handling, disaster management, natural disaster management, resiliency and business continuity.

Pillar 4-SIPs are implemented through projects such as: mobile emergency alert system, citizen security app, national surveillance cameras, law enforcement mobile camera systems, data protection regulations, cyber security monitoring and action programs, license plate reading system.

4.6. Smart Destination for leisure and business (Pillar#5)

Curaçao is a leading destination in the Caribbean region for tourism and international business. It therefore has to offer excellent business opportunities by leveraging the quality of its services with its strategic geographic location as a digital regional hub connecting the Americas with the rest of the world.

The extensive application of smart technologies will allow investors and visitors efficient access to other smart cities and nations and for Curaçao to be able to export ideas, products and services efficiently to the global marketplace. In addition, this policy area will also promote more financial inclusion and the increasing application of financial technology in the local provision of financial services through the development of the FinTech industry in Curaçao.

The Pillar 5-SIPs identified in this policy area will address, among others, the following subject matters:

- Smart tourism;
- Eco-tourism;
- Smart investments;
- Digital (regional) hub and innovation districts;
- FinTech, blockchain, bitcoin and other cryptocurrencies; and
- Smart employment, smart entrepreneurs, incubators and co-working spaces.

Pillar 5-SIPs are implemented through projects such as: Curaçao on the map, Google Street View, smart city kiosks, tax holiday, Curaçao-Multi Commodities Centre, mobile payment systems, cryptocurrency and digital asset investment funds, and contribution to the development of the ITU-Resolution on "Stations on board sub-orbital vehicles".

"You can't do today's job with yesterday's methods and expect to be in business tomorrow" …….

4.7. Health and Living (Pillar #6)

Healthy and happy citizens create the right balance in every society. The people in Curaçao shall have an overall good quality-of-life and must be satisfied with their living conditions and standards. Innovation will make Smart Nation Curaçao a more accessible place for people of all abilities. In a Smart Nation, citizens can use smart technologies to receive and process environment, cognitive and biological data upon which they can make decisions on how to become healthier, eat better and perform more optimally in the society. Therefore, a smart nation will demand a smart healthcare system, which can provide effective healthcare in a more efficient manner. An integrated healthcare system, combined with digital systems for the collection and sharing of data, medical analysis and healthcare research, will lead to a new era in tackling modern-day healthcare and wellness problems.

The Pillar 6-SIPs identified in this policy area will address, among others, the following subject matters:

- Quality of Life and Health;
- Active lifestyle;
- Social welfare of citizens;
- E-Health and tele-healthcare;
- Smart wearable devices, mobile and wireless healthcare applications;
- Personalized treatments; and
- Smart hospitals.

Pillar 6-SIPs are implemented through projects such as: Smart Health Apps, Tele-health applications, air quality monitoring and measuring systems and personalized treatment programs.

V. THE SMART NATION IMPLEMENTATION MODALITY FOR CURAÇAO

5.1. Composition of and responsibilities within the national implementing organization

Given its roles and responsibilities as discussed above, the Government of Curaçao established the Smart Nation Platform Curaçao (hereinafter: "the Platform") as the national implementing organization. The Platform has been entrusted with the realization of a long-term vision and a comprehensive strategic plan for the progressive conversion of the capital Willemstad into a Smart City and the country of Curaçao into a Smart Nation by means of the National Decree of February 6, 2018 (no.18/0289).

At the highest level of the Platform, a Steering Committee presided upon by the Minister of Economic Development and consisting of some cabinet ministers and industry experts, will have the task of the preparation and monitoring of a strategic plan for the implementation of the Smart nation concept in Curaçao during the years 2018-2030. The Steering Committee will be advised by an Advisory Board. To accomplish a more inclusive and participatory structure, the Advisory Board shall consist of all representatives of the Platform consisting of the stakeholders from the public sector, private sector and knowledge institutions. By means of this structure the required expertise and knowledge can be made available in a collaborative manner.

Both the Steering Committee and the Advisory Board enjoy the support of the Secretariat, which function has been entrusted to the Bureau of Telecommunication and Post (hereinafter: "the Bureau"). The Bureau reports to the Steering Committee and it coordinates the meetings and activities of the Steering Committee and the Advisory Board, as well as implement the decisions of the Steering Committee. In addition, the Bureau:

- conducts research and follows developments related to the digital economy, which are relevant to the implementation of the smart nation concept in Curacao;
- provides solicited and unsolicited advice to the Steering Committee on Smart Nation technologies and on other relevant developments in the field of Smart Nation or Smart Cities;
- makes policy proposals in the field of a digital economy, innovative economic growth modalities, ICT-developments in ICT, the realization of Smart City / Smart Nation concepts or an information society;

- prepares annual programs to implement the strategic plan, as approved by the Steering Committee; and
- monitors the implementation of the annual programs for the Steering Committee and reports to it.

5.2. A collaborative and inter-disciplinary approach

The Platform provides an effective governance system for the realization of the Smart Nation concept, which structure involves all the relevant stakeholders either by means of direct participation in the work of the Platform or through organized consultation. The process is therefore very inclusive, as innovation requires co-creation and extensive collaboration between various disciplines to realize the best possible outcome for all involved.

The intention is not only to collaborate extensively within the Platform, but also to realize the necessary collaboration between the public sector, the private sector, knowledge and educational institutions, individuals, giving all those involved the opportunity to share resources and capabilities.

5.3. Operational dimensions of the Platform

On an operational footing, the Platform will bring together various experts of different organizations and government agencies on a regular basis, where various relevant (new) subjects will be presented and discussed, and ideas will be interchanged to solve technical and other problems related to the implementation of a Smart Nation.

In addition, policy papers will be prepared on a regular basis for critical technical areas, while an interactive website will function as a supporting mechanism for the work-program of the Platform, assisting its efforts to disseminate information to engage citizens and promote digital collaboration among stakeholders with respect to:

- the discussion of ideas;
- the showcasing of applications;
- the provision of opinions; and
- the presentation of problems, challenges, and solutions.

Collaboration and co-creation based on citizen-centered strategies is fundamental to ensure a comprehensive development of a Smart Nation ecosystem. To fortify the implementation of this principle on a sectoral level and to guarantee the continuity of

developments within each of the specific pillars of comprehensive national development (as will be discussed hereafter), two lead persons (or pillar coordinators) will be appointed in each pillar. These coordinators are, in principle, innovative and creative minds that are highly enthusiastic, but practical, about the application of smart nation technologies in Curaçao.

5.4. Implementation of the vision of the Platform

Given the collaborative and inter-disciplinary approach within the Platform governance system, and the operational dimensions as indicated above, the system, in principle, lays a proper foundation for the preparation and control of the necessary decisions by the Government, i.e. the Council of Ministers.

As the strategic plan is devised by the Steering Committee, with the assistance of the Advisory Board and coordinated by the Secretariat, decisions will have to be taken as to the appropriate allocations of responsibilities, tasks, funding and investments required by the public sector, the private sector, knowledge institutions and possible PPP-initiatives.

Finally, based on the general framework and the objectives provided in this paper, a big vision to create a Smart Nation ecosystem in Curaçao will be elaborated upon in the strategic plan to be adopted by the Government. Big visions such as this one, inspire as to what is possible. However, achieving a big vision is not s a straightforward process, it's an iterative process, that requires exceptional technical knowledge in a variety of professional areas and excellent teamwork, where each development phase will build on the successes and experiences of the previous one. In effect through small, but progressive, implementation within the learning organization of the Platform and under the guidance of the Steering Committee, building the future is done brick by brick.

In this process, permanent data gathering, citizen engagement, stakeholders' consultations and fulfillment of the identified prior and enabling conditions are key elements in the realization of the vision with respect to development of a smart nation ecosystem, especially in the areas identified as the primary pillars for a comprehensive smart nation development

Market disruptions should be alarm bells for new technological breakthroughs, anywhere in the marketplace……

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