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VANUS INVESTMENTS LIMITED

## ANNEX IV (D)

THE CARNIVAL MUSIC INDUSTRY

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## TABLE OF CONTENTS

1. Introduction .....	2
2. The Activities, Inputs and Outputs of the Music Industry .....	3
2.1. Activities.....	3
2.2. The Outputs and Inputs – A Static View of Technology .....	4
2.3. Institutional Arrangements .....	5
2.4. Underlying functions.....	5
2.5. Distribution .....	6
2.6. Supporting expertise for the production and distribution process .....	7
2.7. The Source of Sales and Profit .....	7
3. A Dynamic View of Inputs, Technology and Output in Carnival Music .....	8
4. Industry Challenges and the Policy Agenda .....	11

## 1. INTRODUCTION

Selling the world its culture and science as output or as intermediate or final input is perhaps the most important device in a country's socio-economic development process but the essence of success is the dynamic fusion achieved. The music industry provides avenues for this to be done. The carnival music industry refers to the set of operators, i.e., the establishments, firms and sole proprietors, and their employees, who produce and sell four broad types of music that reflect the multi-ethnic population of Trinidad and Tobago – traditional calypso, power soca, groovy soca, and chutney soca – sold mainly as digital recordings and live performances. It also includes the consumers of the music. Among the establishments are the business associations or trade groups that support the operators of the industry. Standard technical analysis of any industry focuses on the types of activities, the related inputs and outputs, and the associated production functions. It covers how music is recorded, produced, promoted and sold, delivered and monetized. This report sets out a dynamic technical analysis of the carnival music industry of Trinidad and Tobago. The analysis is dynamic in the sense that, beyond the documentation of the activities, outputs, inputs and their static technical relationships, it focuses on the dynamic time paths of these variables. This analysis is a necessary condition for an economic analysis, which would take full account of the objective of profit maximization and the associated role of factor and output prices. Economic data on prices and costs are not yet available to support an economic analysis. A dynamic analysis is necessary because the industry typically undergoes rapid change.

The report first documents the activities, inputs and outputs of the industry and the associated outputs. The extent of import use is considered and a static view of the industry's technology is provided, along with the supporting institutional arrangements, the distribution system and the sources of sales and profit. Next, the report provides a more dynamic view of the technology, considering how the outputs and inputs are evolving, and the influence on the business of the industry. Finally, the report documents key industry challenges and the policy agenda needed to promote development. Here, focus is on the priority non-price issues to be addressed in facilitating the progressive market-oriented development of the carnival music industry.



## 2. THE ACTIVITIES, INPUTS AND OUTPUTS OF THE MUSIC INDUSTRY

### 2.1. ACTIVITIES

The carnival music industry is small but vibrant and closely associated with the national identity and the propagation of local culture globally. It comprises numerous musical styles and instruments, such as calypso, soca, chutney, chutney soca, pantar, rapso, ragga, and extempo. The industry covers a broad range of integrated activities that traverse a seamless spectrum featuring music creation, production, live performance, and broadcasting. All of these activities are inherently creative, characterized by continuous adaptation and adjustment of the inputs of information and the arrangements of music. Music creation includes the activities of songwriting and composition, normally done by independent songwriters/composers or multiple collaborators. Corporate songwriting/composing is recognized as part of the process. The compositions and songs that result may be recorded. Music production is partly a creative process involving creative producer outputs, vocal performer outputs and instrumentalist outputs. Where recording matters, production requires the input services of music studios that facilitate the recording process. Other elements such as mixing and mastering, record (CD) duplication, may support the process of getting the final product ready for distribution to end-users. A significant amount of the music produced is in the form of music videos that combine both audio and visual aspects into a single product. The main organizers driving the audio-visual production process are the producers, directors and editors. Music performance is again becoming an increasingly important activity and output in the music industry, after a long period in which recording rose in its relative significance. There are many variants of performance. One is the recorded performance delivered by DJs (disk jockeys) who play a major role in clubs and fetes. However, the foundation of the music industry has always been and still remains live performance by soloists (vocals or instrumentalists), groups/bands (with featured (star), supported by musicians and back-up musicians & vocalists), programmers (music production controllers and preloaded music and vocals), and dancers, costumes/props, and various other communication media (audio visual). Music broadcasting is a significant activity undertaken by radio, television and online streaming, and can yield creative music output in its own right. Broadcasting is also significant because it is a vital and relatively cheap form of marketing of the musical outputs of the industry.

*The industry covers a broad range of integrated activities...featuring music creation, production, live performance, and broadcasting...characterized by continuous adaptation and adjustment of*

Certain key occupations/professions support the activities of the Industry. In creation of recorded music, the following are important: record labels; recording artists; instrumentalists; music producers; mixing and mastering engineers; music publishers; songwriters and composers; CD production, duplication and printing companies; graphic designers / photographers; distribution companies; video

producers; video directors; and video editors. In the creation of live performance, the following are important: performing artists; road managers; artist managers; booking agencies; back-up musicians and vocalists; dancers and performers; event promoters; venue managers/owners; stage managers; sound engineers; lighting engineers; stage, sound and lighting equipment suppliers. Other key professionals that provide necessary support for all types of performances are entertainment attorneys and general business managers. These professionals might be engaged fulltime or part-time depending on the business model being used by the establishments of the industry.

## 2.2. THE OUTPUTS AND INPUTS – A STATIC VIEW OF TECHNOLOGY

From the standpoint of their intrinsic features, the outputs of the carnival music industry can be usefully characterized in terms of the genres. Viewed from the standpoint of whether they are utilized and consumed in the other activities of the carnival high season, such as fetes, one can discern that the various content creators, producers, songwriters, performers develop musical output under the influence of local culture as well as foreign R&B, Hip Hop, Dance Music, Reggae, Dancehall, and Jazz, among others. The musical output was once described as thriving on “rowdiness and violence” and ‘raw sexuality’ (Rohlehr, 1990<sup>1</sup>; Mason, 1998<sup>2</sup>), in close partnership with local rum. Traditionally, the carnival music products were offered as live performances and as vinyl records. This transitioned into cassette tapes, which were then displaced by compact discs (CDs). Today, all of these forms are being displaced by digital music recordings, played through portable media devices, computers and internet-based software and cloud services. These changes occurred within the last two decades and are indicative of the rapid changes in the underlying technology of music production, consumption, and distribution.

The main inputs used to create these outputs include: (i) labor, skill and creativity; (ii) popular culture and information on events, including tacit knowledge; and (iii) other recorded music (global) – including foreign music; and (iv) a variety of instruments and equipment, including pan. A high proportion of the inputs of the industry, including the instruments, is imported. The imported instruments include pianos and other keyboards, stringed musical instruments, wind musical instruments organs, accordions and brass-wind instruments, musical instruments the sound of which is produced or must be amplified, electrically, percussion instruments, decoy calls, whistles, call horns and other mouth-blown, sound-signalling instruments, parts and accessories of musical instruments, and metronomes, tuning forks, and pitch pipes. Also important are recording software and hardware. Performers rely on these imports to perform, even though some local production of tassa and other drums persists. The ‘truck on the road’ is essentially an assembly of imported components, even though the creativity of the combination must be acknowledged (James, 2012a). The industry is nevertheless skill-intensive and the carnival music industry, defined to include chutney, generates

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<sup>1</sup> Rohlehr, G. (1990). *Calypso and Society in Pre-Independence Trinidad*. Tunapuna, Trinidad: Gordon Rohlehr.

<sup>2</sup> Mason, P. (1998). *Bacchanal! The Carnival Culture of Trinidad*. Kingston: Ian Randle.

significant paid employment opportunity for 600 fulltime skilled workers in Trinidad and Tobago, while also producing copyright and goodwill as capital (James, 2012a)<sup>3</sup>.

### 2.3. INSTITUTIONAL ARRANGEMENTS

Small and medium enterprises and sole proprietors, many unregistered in formal terms, are the core institutions of the carnival music industry. Some support is also provided by the representative institutions, including Trinbago Unified Calypsonians Organization TUCO, the collective management organizations (COTT, etc.) and the steel orchestras. The latter must also count as elements of the carnival music industry in so far as they write and play their own soca music. TUCO was formed in 1992 to drive the development of calypso, and was incorporated by an Act of Parliament for this purpose. It is funded mainly by the government of Trinidad and Tobago. As the local genres evolve, TUCO is proving to be unable to attract the main successful artists of the carnival industry because they have evolved into multi-dimensional businesses requiring business services that the institution does not supply. Since 1957, various incarnations of the National Carnival Commission have been the means by which government provides funds and administrative support for the organization of competitions that stimulate the creative expression of the musician and composer (Mason, 1998: 31; James, 2012<sup>4</sup>). Today, music is routinely taught in the school system. Further, since the 1990s there has been a trend to use the music in many secondary school training programs, including those in secondary schools, the University of Trinidad and Tobago, and the University of the West Indies (James, 2012b).

### 2.4. UNDERLYING FUNCTIONS

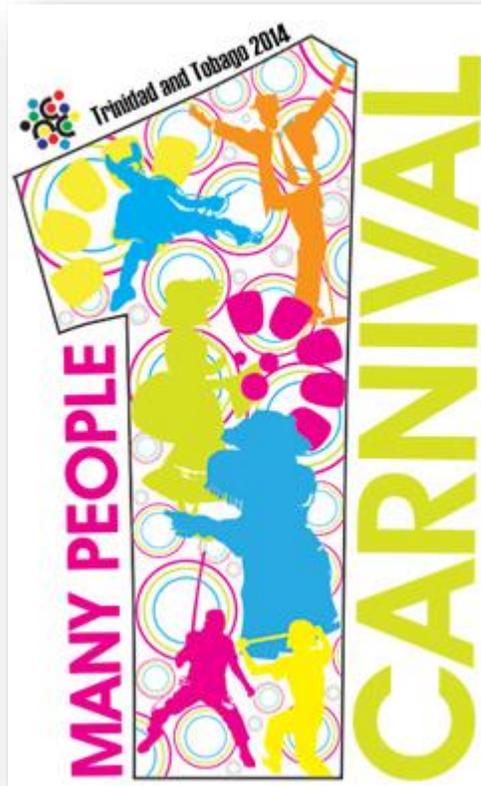
In collaboration with creative producers and arrangers/musicians invest considerable practice time to combine music compositions with voice and instrumentation to generate music. Instruments range from pan to sitar, through guitar and piano. It must also be observed that the rapid growth in the influence of digital technology has provided easy access to digital replications of musical instruments as well as the work of the arrangers. These are then utilized by sound engineers in recording studios to generate sound recordings called masters, including jingles and ringtones. The masters are then replicated in the reproduction of recordings. Utilization includes long hours of practice and experimentation to get the output just finished and this has very much the same status in music production as research and development in the production of patents and other intellectual property. Recording studios operate facilities of varying sophistication that affect the quality of the music master. The essential implication of creativity is widely varying quality and distinctiveness in the combination of skills and compositions when making music, also resulting in widely varying popularity and longevity of the resulting output.

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<sup>3</sup> James, V. (2012a). **The Economic Contribution of Copyright-Based Industries in Trinidad and Tobago:** Potential and Policies for Economic Transformation. Geneva: WIPO.

<sup>4</sup> James, V. (2000b). The IPRs and the music industry in the Caribbean. In Barowclough, D. and Kozul-Wright, Z. (2012). **Creative industries and Developing Countries:** voice, choice and economic growth. London: Routledge.

In the case of live performances, including in shows, fetes and competitions, carnival music also draws on the above process, but is distinguished by a major role for theatre as compared to recording, even though the latter occurs. In this case the production process features a distinct role for event promoters for live performances, venues, booking agents, promoters and even 'truck on the road' services. As in the case of the studios, all of these associated inputs feature varying quality and



competence, resulting in wide variation in the quality and attractiveness of the resulting performances.

Carnival music production is a fusion process, which is largely but not purely creative. The creative process has always been the process of bringing to bear one's collective experience, tacit knowledge from culture, and musical training in the creation of music and lyrics. From an organizational standpoint, it involves creative collaboration and networking, and considerable copying and adaptation of international materials. The capacity to adopt and adapt is typically more important than pure originality in achieving success. Carnival musicians collaborate with vocalists, authors with composers, artists with producers, and so on, and much of the individual creativity in a studio is controlled by the music producer, as distinct from some other genres in which the control is achieved by the use of musical score sheets. From the standpoint of the equipment used in the fusion process of the modern industry, much of music creation and distribution is

achieved on the computer (desktop or laptop), using production software and equipment (from simple free options to elaborate and very costly options), digitized mixing and mastering software and equipment, and background musicians and vocalists. Where recording is done, studio time must be hired but a significant share of this input is available at low-cost, and is typically combined with the producer's fee. Mixing and mastering as well as background musicians and vocalists also account for a small share of the costs. With respect to live performances, the technology involves long hours of practice to memorize music, lyrics and routines; experimentation with sound engineering to establish sound levels before shows, and experimentation with lighting engineering to create the right light effects, and long hours of practice to get the showmanship and musicianship just right.

## 2.5. DISTRIBUTION

Recorded carnival music is sold in fetes, masquerade, fashion shows, the tourism industry, among others; and through distributors/sellers at retail and wholesale outlet or in digital form in online stores and virtual malls such as Amazon, iTunes, Spotify, Pandora and Youtube. Before piracy and the advent

of the new majors, the process was supported by salesmanship and advertising as well as by live performances that were funded and promoted under contract by the old majors such as Sony; Warner; Universal, or by small 'independent' operators. Most carnival music was produced and distributed by the latter group. This has now changed considerably. The sound recording are now mostly distributed as public goods/services and the scale of distribution used to promote live performances. In the case of carnival music, radio DJs and TV broadcasters play a major role in determining the visibility of both sound recordings and live performances, whether in the local market or in the export market or online and on satellite services. Exposure is usually available at a cost.

## 2.6. SUPPORTING EXPERTISE FOR THE PRODUCTION AND DISTRIBUTION PROCESS

Agents and entertainment lawyers, often the same persons, play an increasing role in the development of the carnival music industry, in both the production and distribution processes. Historically, contracting to support this process involves agreement on fees either in writing or orally, but there is a growing tendency for the successful operations to recruit professional supporting services. Successful operations are increasing those that employ or can attract good business managers, talent managers, accountants, booking agents and road managers. Further, viewed from the standpoint of exposure, skilled print and audio journalists also play a substantial role. It is worth observing that the overall quality of the carnival music product increasingly depends on the supply of capacity and skill by the local education and training system, working in combination with the traditional culture and the tacit knowledge it shares. Other than for pan, the local manufacturing sector plays almost no role as a supplier of instruments and expertise. Linkages to manufacturing are primarily through the steel pan, which operates by importing new steel drums as well as by recycling used steel drums and the abandoned parts of motor vehicles.

## 2.7. THE SOURCE OF SALES AND PROFIT

The industry generates supply for carnival (mas) itself, for the audio-visual sector, and for sectors outside, such as hotels and guest houses, restaurants, fetes, beach limes, calypso shows, and chutney shows. In addition to composers/performers producing intermediates of songwriting, instrument playing, and stage performance, other major performers delivering both intermediate and final output in the industry include steel orchestras and 'truck on the road'. The industry now operates year round and the best available estimate of the scale is now outdated, but approximated TT\$192 million of sales, used TT\$119 million of intermediates and generated about TT\$74 million of value-added in 2011 (James, 2013). Goodwill, especially its IP content, is both an asset and an output of the carnival music process. Culture expresses and monetizes itself mainly through production of goodwill, including a wide range of IP and structural capital. The fame of an event or artist, and the success of sales and live performances, is bound up with the capacity to generate both worker and 'consumer goodwill' as active inputs into live performance and worker goodwill in the studio process.

### 3. A DYNAMIC VIEW OF INPUTS, TECHNOLOGY AND OUTPUT IN CARNIVAL MUSIC

While always important in carnival music production, the emergence of fusions and social cross-over is evident in the new dominant trends – chutney soca; power soca; and groovy soca. There is also increasing use of theatrical presentations to support live performances, which also has the effect of fostering continuous adjustment of the output through direct interaction with consumers during a performance and through delayed feedback in studio work. Except where the intent is to create a pure sound that maintains the integrity of a specific genre, the commercially successful process of carnival music creation by many songwriters and composers is increasingly inspired and influenced by experiences with R&B, rocks, dancehall, reggae, chutney, dance and other genres, and by collaboration with their creators. The inevitable result of these influences has been the evolution of the traditional sound associated with calypso and soca to sounds that reflect a fusion between these other genres and the traditional forms. In many ways, such fusion is a natural part of the creative process and these new sounds a part of the natural evolution of carnival music. The bombardment of foreign media on - TV, radio and the internet have opened up a never-ending pool of sources for finding inspiration. The sounds heard in 2014 during Carnival demonstrate this wide range of influences – and suggest that the industry is reaching the limits of the carrying capacity afforded by the local cultural space. This process is likely to continue unless there is greater formal investment in the use of science of music through research and the education process to define new boundaries of possibilities with the local knowledge content.

A second major source of rapid change is influence of the fast evolving digital production technology. There is an increasing role for digital production technology for music creation. This technology has made it possible for music to be created anywhere and in any place, and increasingly by anyone even when not a professionally trained musician. Digital technology and the internet have also allowed a rapid growth of the potential market for music, by enabling marketing, broadcasting and distribution from the local base. Producers of carnival



music have correspondingly become more numerous as the tools for experimenting with music creation have become readily available to all. The cost of music production programs has gone from 'pricey' to many now being available for free. It is now more common to find a producer working out of a part of his or her home than to find a producer operating out of an established brick and mortar studio. It is simply no longer a requirement for the production process to occur. As a result of this reduction in cost due to technological change, music production for aspiring artists is now more

affordable and accessible. It simply costs less for all involved. Another interesting observation resulting from the rise of digital production technology is the ease with which collaboration can take place. Collaboration no longer requires all parties to be in the same place at the same time. With existing technology it is now possible and very routine for one producer to create part of the musical work and send for a collaboration half way across the world for collaborators to do the rest. Music can be voiced separately and sent via email or by software such as skype that allow global collaboration in real time. The immediate implication of these trends is that creativity rather than physical capital is the distinguishing success factor in carnival music business, even though financial capital remains critically important for those who seek full-time careers or seek to develop multi-employee businesses in the industry.

Another related trend in the carnival music business is the increasing relative significance of image creation and image rights and merchandizing. While always important historically, the increasing need to shift back to live performance as a form of expression that has attended to the ease of creation of music and the proliferation of copying technology has also made it necessary to return to the era of image as everything. In today's environment, paying for music is not the norm, in large part because access to free music is available to anyone with an internet connection. This reality has led to the decreasing significance of sound recording sales (CDs, etc.) as a form of income and the rise of live performance and merchandizing as primary sources of income for the carnival artist, operator and firm.<sup>5</sup> Accordingly, the successful operators with the changing business model are increasingly turning to professional image development, advertising and merchandise – brand development for income, with these activities promoted by musical success. There is a growing role of celebrity endorsements in selling products. This is not a new phenomenon in itself, but in the carnival music industry the practice is on the rise and increasingly well managed. More and more of the top entertainers and sports personalities are being courted by major companies for opportunities to exploit their celebrity brand in enticing customers to buy their products. The natural passion that comes with the interactive fan base is being exploited as a unique opportunity to capitalize on opportunities to brand and sell. From the music business perspective, through the use of entertainment lawyers and experienced artiste managers, the individual artist, like the firm, is increasingly savvy about how to approach the development and sale of brands. Thus, increasingly, the local live performance and the international tour are devices used to sell a developing celebrity brand.

The rise in celebrity branding has also created a trend for the successful operators to also be professional operators able to create high visibility. There appears to be a marked increase in the level of professionalism, when compared to the early days when Sparrow, Kitchener and Stalin became full-time calypsonians and most of the others worked part-time in the local industry. Put differently, the business model has changed. In the long run other changes will be required to sustain the process and one of these is concentration. On the supply side, significant concentration is beginning to appear, with

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<sup>5</sup> The old majors that have been the biggest losers with the digital revolution have also revisited the traditional models of deal making to include shares in live performances and merchandising so as to compensate for the major reduction in record sales.

the new business models spawning businesses rather than artistes in the form of “Xtatic (Machel Montano)” and “Asylum Vikings (Bunji Garlin)”, for example. There is an absence of an adequate supply of supporting professionals in key fields like artist management and entertainment law. However, for the top artists operating within businesses in their own right, the approach to the music business is evolving from the tendency to negotiate from an uninformed position to negotiating their business through artist managers and entertainment lawyers. This approach has resulted in a greater ability to exploit their celebrity brand by negotiating more compensatory fees, better advances on deals and generally avoiding contracts that are one-sided in nature or inconsistent with their business interests.

One result of this rise in the quality and extent of professionalism is greater financial success for the artist and their teams. This trend with the top artists has also increasing facilitated fulltime songwriting and music production, among other inputs. There has been a general evolution in the way young producers and songwriters have approached their business. Today, songwriters appear to be more likely to ensure the existence of licenses for the songs being written, resulting in an improved and more secure share of income derived from the exploitation of the music. Music producers have also become more aware of the need for contracting so as to secure their rights in the sound recordings before handing over the masters to their clients. Interestingly, these adjustment have also been driven by the transformation of digital music into public goods – file sharing; by the adverse distribution of income by the new majors; and by the related ineffectiveness of collective management.



#### 4. INDUSTRY CHALLENGES AND THE POLICY AGENDA

*Culture provides a basket of activities and products, produced by a basket of dynamic technologies mostly motivated by commonsense, or by earlier science. Science takes these products as input and uses the scientific method to probe beyond the obvious, creating new activities, products, and technologies.*

Notwithstanding its successes, the industry faces significant constraints on its future development. Copyright is of great importance to music professionals in Trinidad and Tobago, especially to composers. However, the routine theft of intellectual property and the dynamics of income distribution created by the new majors armed with modern ICT have created some negative effects that inform how policy must intervene. These lower reward for creativity and dampen the enthusiasm to invent. Further, the copyright infrastructure, including national policy in the light of changing

challenges, remains underdeveloped, as is the enforcement capacity of police and the judiciary. The capital base of the local promoters is still weak and there is inadequate trade promotion and investment programming by the public sector even in the presence of relatively new institutions such as InvestTT. There is also almost no incentive package for the music industry. The processes and outcomes of the music industry can be shaped by policy. In grappling with the question of how to ensure that the country is able to duplicate the success of the most successful (highest earning) creators like Machel Montano and Bunji Garlin, it will be important to consider the comparative roles of science and culture as well as to look at the specific careers of these stars to determine what aided in their success and what stymied development.

Some of the challenges facing the industry can be addressed by increasing the role of science in the music creation process. Culture provides a basket of activities and products, produced by a basket of dynamic technologies mostly motivated by commonsense, or by earlier science. Science takes these products as input and uses the scientific method to probe beyond the obvious, creating new activities, products, and technologies. Social science takes over the monetization from there, with branding, marketing, customer service, and the like. Second, consider cultural fusion – fully exhibited in carnival. A culture takes information, activities, products and technologies from its own sphere of options and preference and fuses them with those of another (including foreign) culture that seeks to deliver the same class of activities, products and technologies. Carnival is a great example, for example in music that links tassa, pan, guitar, and the like, to produce groovy soca, chutney soca, power soca, and so on, all out of calypso. Another nice example from abroad is the creation of modern jazz out of African ragtime and western music, using western musical instruments and the guitar. The blending in most cases primarily occur by using the culture as input, whether intermediate or final. Culture and international fusion, more than science, play the main roles in the evolutionary path of the music industry. This is a locus of favorable change over time, but its sustainability depends on the extent of

public investment in the process. Significant progress can be achieved by increasing the relative role of science in the creation of new music business opportunities.

The key social underpinning, and major lesson, is that fusion occurs where people mix culturally – people from one culture copy certain aspects of another culture to produce the normal requirements of life – entertainment, clothing, food, modes of transport, education, healthcare, and the like. In the same vein, fusion also facilitates local and international trade. Again, social science takes over the monetization from there, with branding, marketing, customer service, and the like. For the benefit of those who might not notice, monetization of culture in the aforementioned senses has allowed the so-called “Western Society” and Japan to enjoy significant success through the process of selling their creative output. This is also something that is not lost on the Chinese, who are moving rapidly to sell their culture to the world. In all these cases, the societies have backed, and are backing, that effort with real money, branding, international dialogue, cultural exchange, and cultural aid, museums, libraries, media centers and information services, to name just a few.

From the perspective of careers, development of the industry will depend on the introduction of high quality professionals in areas that support the businesses of the stars of the industry. Given the reality that live performance has become the main income driver for many of our Carnival artistes and musicians, it is necessary for policy-makers to consider an accelerated program to build local capacity to produce high quality shows. This can be achieved through:

- I. Training of professionals in the areas of stage lighting and sound.
- II. Training of professionals in the area of stage management.
- III. Training of professionals in the area of costuming and stage/set design capabilities.
- IV. Training of professionals in the area of songwriting and composition.
- V. Training of professionals in the area of music.

In addition to live performance, the current successes stories owe much of their success to the support gained from the managers who are the negotiators, the business advisors and networkers for the artists. Without this element, even the most talent artist may be challenged to maximize the limited opportunity to exploit his brand popularity. In that light it would be helpful to develop future industry managers through the following:

- I. Training opportunities for existing and future artist managers in the areas of music business, basic issues in relevant law, networking and business negotiations
- II. Access to training for entertainment lawyers could also encourage more persons to get into the field. There are currently only two fulltime entertainment attorney’s in T&T.

A number of additional policy issues arise in this context. For effective policy, adequate resources must be allocated to ensure the following: (i) collecting data in a suitable form, primarily with the help of a reformed CSO; (ii) careful identification and documentation of all cultural activities and products from a technological perspective; (iii) accurate sorting of all activities and products between the ones that are profitable and the ones that are not. Sound public policy design must complement private activity in both cases (profitable and not profitable), using incentives and regulations in the profitable cases and financing culture as infrastructure in the public and unprofitable cases.

Overall, most progress is made in deploying culture when culture is used as an intermediate input – say into production of film and video gaming. Sound public allocation must also take full note of how technological progress makes cultural forms obsolete while creating new ones in a Schumpeterian dynamic. Where public decision-making is involved, such decisions must be adequately democratized so that all stakeholders can have a voice and equal access at the level of the sectors and at the national level. The routine theft of intellectual property has created two negative effects that inform how policy must intervene. The same can be said for the dynamics of income distribution created by the new majors armed with modern ICT. It lowers the reward for creativity and dampens the enthusiasm to invent. This implies that policy will be needed to address this problem, with some interventions at the global level. Secondly, some kind of academic foundation is going to be needed and created to bring science properly into the process- centers of research into the creative activities of culture—a network of cultural research parks, so to speak. These must primarily also be incubators and risk-management systems that emphasize private business and profit wherever possible. The primary outturn must be graduating entrepreneurs with adequate capacity featuring at least Master’s or PhDs in the relevant increasing numbers, armed with start-up financing facilities, some of which must be private and some of which might draw on “crowd financing”. These entrepreneurs must be accustomed to working in investment teams to minimize individual risk, should be able to draw on national marketing and branding supports, must be invested with the quality and capacity to attract foreign participants – investors/students - for viability, and must be able to make full use of modern ICT and in particular can crowd-source knowledge. Thirdly, whether through incentives or not, expenditure on cultural innovation and on research and development must grow over time as the monetizing frontiers of culture are expanded.

