

2017

Goa IT Manifesto



Goa IT Professionals (GITP) group is an apolitical voluntary association of Goans and well-wishers employed in the Indian and global Information Technology (IT) and related industries contributing their personal time and resources to promote a locally sustainable IT industry in Goa through our strategy of enabling and pressurizing governmental bodies into action for time-bound results towards achieving our vision of Goa becoming the self-sustaining and eco-friendly Innovation Capital of India by 2024!

High-income employment opportunities for Goans to prosper in Goa through clean, green and locally sustainable Information Technology (IT) industry and affiliated economy!

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Information Technology (IT) and related industries are one of the most green, clean and intellectual industries in the world ideally suited for the highly creative, and, environmentally and identity conscious Goan people, and to Goa with its high literacy rates and semi-urban infrastructure across the state with reasonably stable electric power supply and broadband network. Besides employing Goan IT-ITeS professionals and providing quality IT workforce to other industries in Goa (viz. Pharma, FMCG etc.) it will also generate significant local employment opportunities across the complete literacy/skill spectrum in fields like administration, facilities, maintenance, housekeeping, security, transport, food, accommodation etc. Entire Goan society as well as the government will invariably benefit!

For decades now, the lack of local high-income employment opportunities has been driving about 90% of all engineering graduates and about 2/3rd of all other graduates out of Goa leaving behind a poor-quality workforce besides a high number of aging parents without family support in Goa. About 60% of this Goan brain drain ends up in the Indian and global IT-ITeS industry benefiting everybody other than Goa. 15,000-20,000 Goans today work in the IT industry outside Goa with about 2000 educated Goans leaving Goa every year. This exodus has been mostly invisible to political parties who instead split hair on semi-skilled and un-skilled Goans leaving Goa via Portuguese passport. No political party in Goa, including the current ruling coalition, has so far done anything worthwhile except empty promises, scams and petty paperware to promote high-income employment opportunities for Goans in Goa. This situation has been convenient to manipulate and keep subdued the Goans remaining in Goa with doles, government job promises and other political gimmicks. And the Goan masses are guilty of falling prey to these dole outs worth a few thousand rupees while losing sight of lakhs and crores of rupees that they could have earned ethically through their own hardwork using their inherent creativity and intellect with their heads held high if they too demanded modern high-income employment opportunities here in Goa.

200+ Technology startups have sprouted in Goa over the past decade and point to a tremendous but minimally tapped entrepreneurship potential among Goans which if nurtured from an early age could lead to Goa becoming a major Innovation Hub of India within 10 years. It is high time we look beyond our traditional industries (i.e. Mining, Tourism etc.) and make the giant leap into the great future that awaits Goa and Goans.

Any political entity contesting the 2017 Goa state assembly elections which does not accord high priority in their manifesto to the creation of high-income employment opportunities for Goans in Goa through clean, green IT and similar industries needs to be treated as anti-Goan by all Goan voters. IT industry does not need huge land tracts and can be done from every village in a distributed model, even right out of existing residences...so no scope whatsoever for real estate scams in the name of IT. Every Goan must demand a commitment on this matter from every candidate of their constituency and hold them accountable subsequently. Let us remember that when we choose free dole-outs over the hardwork of an ethical livelihood we are wasting our developing nation's precious and limited resources which is clearly an anti-national deed.

With the ideas presented in this **GITP IT Manifesto 2017**, and with this document being publicly available to all, no Goan politician can claim ignorance of this important matter. **Let creating prosperity for Goans in Goa through ethical, modern, high-income employment opportunities be the priority for the 2017 Goa state assembly elections.**

GITP calls upon all political leaders of Goa to reflect upon and actionize the ideas shared below to bring sustainable, eco-friendly, non-disruptive and intellectual progress to our and your most beloved Goa. Let Goa lead the way for the rest of India on new sustainable development models while preserving our pristine Goa for posterity, for our future Goan generations to look back on all of us living today with a sense of pride and gratitude.

1. IT and its affiliated industries (viz. R&D, Engineering Design, Animation, Gaming, Cinema, Music, IT Enabled Services like BPO, KPO, call centers etc.) referred in this document as "IT industry" given its environment-friendly nature and societal transformational potential (as witnessed in other parts of India and the world) is a necessity for Goans to prosper in Goa through ethical, high-income employment opportunities. The new state government must make it the **most prominent industry of Goa within 5 years**.
2. Implement the current [Goa IT Investment Policy 2015](#) in its entirety with simplified disbursement of the promised incentives to eligible local companies without any further delays. And in parallel start work on a bold IT Policy based on our recommendations below which Goa badly needs to catch up with and get ahead of other IT hubs of India.
3. Constitute following **two fully empowered teams** within 3 months of the new government coming to power with publicly transparent progress reviews every quarter against pre-established semi-annual targets for bringing IT related investments into Goa:
 - a) A strong **Goa IT Advisory Council** of accomplished Goans (not political bootlickers) and global experts from the IT industry, NASSCOM and other relevant state and national bodies for game-changing ideas to bring about paradigm shift in the Indian IT industry by establishing Goa as the IT-Innovation powerhouse of India over the next decade. This group should also be used as a platform to network, create global visibility and attract the most innovative companies to setup base in Goa.
 - b) An effective, results-oriented, single-point of accountability **Goa IT Taskforce** headed by a competent Minister of IT (or a super-capable Director of IT) and comprising of go-getter officials from all relevant government departments, local IT industry, relevant industry bodies, academia and professionals to drive the ground-work under guidance of the Goa IT Advisory Council. From matters related to IT policy revisions and execution, IT Park planning through marketing and management, state-wide IT infra-structure, progressive educational reforms, collaborations (i.e. institutional, inter-state, national, international), pursuing potential and suitable IT companies to setup shop in Goa, proactive professional marketing of Goan IT industry at national/international forums and events (no junkets of incompetent folks), local awareness campaigns, skills development programs basically, doing everything necessary to set Goa on the path of being the **Innovation Capital of India** in the next 10 years. This crucial team may be structured into sub-teams with competent leaders for each but all reporting into the single apex point of command and control i.e. a professional and competent Minister or Director of IT. This Taskforce will publish a quarterly public report card on progress versus plans and targets on key parameters, major impediments (causes and responsible entities i.e. Ministries, Departments, others) and actions being taken to recover the delays, major plan changes/additions and rationale for each.

4. Radically simplify the complete process of doing business in Goa which presently ranks a dismal 21st rank on the **ease of doing business (EODB)** scale among Indian states. Work to start within 3 months of new government formation.
 - a) **Minimum government, maximum governance** to facilitate EODB through measures like single-window clearances, minimal government touch-points, pre-defined timelines for government tasks, transparent online processes, e-signatures, e-payments and related measures as propounded by Prime Minister Narendra Modi's Digital India, StartupIndia-StandupIndia and the recent demonetization-related cashless payments initiatives.
 - b) **Time-bound approval processes** will be defined. Government employees found responsible for any delay will face monetary penalty and this will also reflect negatively in their publicly transparent performance reviews.
 - c) **Processes for setting up and executing a business** in Goa will be clearly documented on designated government websites with no government officer or employee authorized to create offline deviations in it and any violations made public.
 - d) **Simplify the process of land acquisition** for IT industry through innovative measures like profit-sharing with local Goan stakeholders like Village Panchayats, Comunidade (Gaunkary) and others, including private parties with significant land holdings compliant with applicable rules and regulations. Example: Magarpatta City in Pune has been built in collaboration with village landowners benefitting them tremendously with a permanent stake in the city.
 - e) At the same time, knowing that IT industry among all modern industries needs minimal land per each job created, the government will ensure that **no real estate scams** are created and disguised under the name of IT industry. And with Goa's abundant greenery and natural beauty we do not need artificially beautified resort-like mega campuses wasting Goa's limited land resource. Let the focus solely be on creating high-income employment for Goans in Goa.
 - f) Provision for effective and enforceable **compliance safeguards** to ensure that the beneficiary companies do not misuse the land and other incentives provided to them.
 - g) **Exempt IT industry from harassing approvals and inspections** from various governmental and semi-governmental bodies under various acts through self-certification, barring inspections arising out of specific complaints and strict penalties for misrepresentation and non-compliances.
 - h) Panchayats and Municipal bodies should have a **fixed ceiling on NOC / Trade License charges** for local companies and startups.
 - i) Make **Public Services Guarantee Act** applicable to all industries in Goa to ensure business continuity.
5. Overhaul, consolidate, integrate and **streamline all IT related government entities for efficiency and single-point accountability** within 3 months of new government formation.
 - a) Bring in **professional leadership** for top quality work and results-oriented performance of all related teams.

- b) **Dismantle or bring under singular command** of the Department of IT all state government entities related to IT: Goa InfoTech Corporation (ITG), Goa Electronics Limited (GEL) etc.
 - c) Institute a **publicly transparent performance system** for all employees of these departments most of whom are incompetent, non-performing, political appointees wasting our state's and nation's precious limited resources on their salaries for doing virtually nothing which is clearly anti-national.
 - d) Ensure **24x7 uptime** and call-center support for all Goa government websites and IT systems in order to truly enable PM Narendra Modi's vision for Digital India and eGovernance.
 - e) Have reputed agencies carry out regular **Security Audits** of the entire state government IT ecosystem to pre-empt frequent hacking attacks witnessed recently.
6. Complete the planned **Chimbel IT Park** in its entirety within 2 years of new government formation with the pilot phase (i.e. first set of ready-to-use building blocks) completed within the first year itself. State government to demonstrate its commitment through this speedy delivery of truly world-class infrastructure at the IT Park. Implement a **publicly transparent governance mechanism** for all beneficiaries of the IT Park aligned with the best practices followed by well-established similar Indian and global IT Parks.
7. Enhance the **basic pre-requisite infrastructure** for IT industry (i.e. power supply and broadband) across Goa.
- a) **Revise contractual terms of GBBN** to extend government's control over it for the next 10 years given its gross under-utilization since inception due to successive governments' apathy resulting in minimal utilization of its tremendous potential for propagating high-speed broadband across Goa.
 - b) Leveraging existing statewide **Goa Broadband Network (GBBN)** fibre-optic cable infrastructure along with BSNL and other private wireless broadband ISPs (Internet Service Providers) each and every corner of Goa must have access to high speed broadband so that Goans anywhere in Goa can use the power of the internet productively to change their destiny as envisaged in PM Narendra Modi's Digital-India mission.
 - c) Additionally, adopt **innovative techniques and technologies** to further reinforce and expand the internet infrastructure in Goa, such as:
 - Laying **pipes along electricity poles** and during road restructuring or new construction, which can then be sold off to private ISPs, who can compete and innovate to provide the best service to end users. Refer Telangana's similar work for implementation details and adopt their learnings and best practices.
 - **Under-utilized assets** for point-to-point connectivity can be leased off for lower price rates to private players.
 - **Work with TRAI** to liberalize the 5Ghz radio spectrum and legalize MM (millimeter) wave radio signals to help WISPs (Wireless Internet Service Provider) and larger players accelerate their infrastructure growth.
 - d) Local opposition to **mobile cell towers** to be proactively addressed by the government by reaching out to local stakeholders, creating awareness to eliminate

numerous misconceptions and addressing genuine concerns. GITP's offer to help the current state government in this regard remains open to the new government as well. Enable **emission monitoring by locals** by providing a Radio Frequency (RF) emission measuring meter to each panchayat which is made available to locals on need basis.

- e) Incentivize largescale **solar and wind power** generation by locals with their excess power fed back into the grid through smart meters. This will help significantly improve the capacity and stability of Goa's existing power supply infrastructure for electricity to be available to each and every corner of Goa.
 - f) Incentivize construction of **Green and Zero-Energy Buildings** in Goan IT industry to minimize additional demand for electricity and environmental impact.
8. Create a network of **low-cost incubators and co-working spaces** across Goa for startups, companies and freelancers to get access to a professional working environment. These could be extensions of the existing 2 CIBA incubators, collaborations with STPI/others or even private initiatives complying with minimum prescribed specifications. The current government has failed on this front with a single STPI incubator at Udh yog Bhavan (Panaji) that was to be ready by July 2016 still incomplete. GITP had voluntarily provided a redesigned layout for this incubator in February 2016 to increase its capacity by 30%. Additionally, GITP had specifically identified a handful under/un-utilized government buildings which could have been quickly refurbished as co-working spaces. However there has been no action from the government on this as well.
 9. Enable **reverse brain-drain of skilled Goans** back to Goa to reinforce the local workforce.
 - a) Create a **skill registry** of all Goans based in Goa as well as outside. Identify those willing to return to Goa who then could be proactively contacted and assisted in their return. GITP's existing Goa Skills Registry (GSR) could be leveraged for this purpose.
 - b) Evaluate and implement the most positive, progressive, practical and non-disruptive measures used by other states and countries (e.g. Israel) to encourage and facilitate the **return and settlement** of their people.
 - c) Mandate all local schools, private as well as public, to **accept enrolment** of children of such returning Goans at all times without restrictions.
 - d) Incentivize locals to revive, refurbish and service the many **closed Goan houses** especially in the villages as temporary rental accommodation to the returning Goan families besides tourists.
 10. Create a professionally managed **Goa Innovation Fund** to finance innovation involving local Goan talent and companies registered in Goa developing unique and patentable technology.
 - a) Demonstrate Goa **government's commitment through initial contribution of Rs.100 crores** to this fund. And commit to further replenish the fund as it depletes with atleast Rs.50 crores per annum.
 - b) Create a **pool of pre-vetted investors** consisting of major local business houses (viz. mining, pharma, tourism etc.), national and international technology giants, Goans and the Goan diaspora worldwide, and well-wishers.

- c) Ensure that Goan companies that receive investments from this pre-approved investor pool to further their patentable ideas, have those **investments matched by equal funds from the Goa Innovation fund**. This creates a force multiplier effect both for investors and Goan entrepreneurs pursuing unique technology.
 - d) Structure the entire fund management process from nominations, evaluation to disbursal and recovery on the lines of the best such governmental funding schemes in **leading international business destinations** like Singapore and Dubai.
11. **Strategic prioritization for IT-enabled technology services sectors of national importance** viz. cyber security, education, banking & finance, R&D, engineering design services (CAD, CAM, CAE) for shipbuilding, marine, naval and industrial sectors including smart manufacturing design services oriented towards PM Narendra Modi's Make in India initiative. Goa's significant technical education output will immensely benefit from these employment opportunities in Goa.
12. **High encouragement and incentives for local** technology-centric entrepreneurs, startups and companies to promote greater local interest and involvement considering the mid-long term benefits to the local population from the intellectual and creative nature of the IT industry.
- a) All local companies registered with Department of IT must be **automatically empaneled** based on pre-defined criteria and Earnest Money Deposit (**EMD**) **for them must be set at 1/10th** of the conventional amount given limited financial resources at their disposal. Publicly transparent empanelment criteria must be based on **national and international standards** with reference to which then the auto-empanelled local companies are graded for their suitability for different projects with the grading updated every quarter.
 - b) Local technology startups and larger companies with local headcount beyond defined thresholds at their IT centers in Goa must be given preference for all **Goa government's IT-ITES contracts**. In case no local company has the required skills and/or manpower for a particular state government project then it must be mandated that the chosen **outsider company necessarily partners the closest-fit local company** to execute the project.
 - c) Outsider companies contracted to carry out any super-specialty long-term work for the state government must necessarily be **contractually obligated on knowledge transfer** of its work to the relevant government department or a competent local company specializing in similar field.
 - d) Chronically, mid-large sized technology projects of Goa government have gone to companies outside Goa. This results in double local damage with outsiders benefitting from our state expenditure while depriving our local upcoming companies of business growth opportunities. Hence the new government must support creation of and formally empanel a **cooperative/conglomerate of all local startups** aggregating and synergizing their strengths and capabilities with a professional governance mechanism, leadership and quality standards to successfully bid and deliver all mid-large sized projects for Goa government. This will help develop capabilities, scale and synergies among local companies while also encouraging more Goans to get into business and stay back in Goa. If required, GITP is ready to help set up as well as operate this entity through to steady-state.

- e) Build **productive partnerships with global IT giants** like Google, Microsoft and others to provide a platform of free/discounted latest tools, technologies and resources coupled with governmental support and funding to local startups as well as competent individuals for development of innovations and IT projects of local relevance and benefit such as:
- An all Goa **self-governed Uber/OlaCabs-like platform** for 2/3/4-wheeler taxi operators who have not yet realized how much more they could benefit with increased business through such a state-wide platform.
 - Integrated platform with runtime information of all tourism services and attractions for an **immersive Goa experience** for the visiting tourists.
 - Online **knowledge base** of traditional Goan occupations, community assets, crafts, arts, medicines etc.
 - Make available **online, every government service** ensuring that all these have a tightly integrated architecture and design for a seamless user experience. Maximize use of the **Open Government Data (OGD)** platform for this and make available all such **eGovernance services in regional languages**, especially Konkani in all locally relevant scripts.
 - Five-fold expansion in 5 years of the [Konkani Wikipedia](#) initiative in all 5 scripts.
- f) Subsidize the local workforce **training, professional certifications and salary costs, and operational costs** for these companies for a limited period of 5-10 years.
- g) Incentivize these companies to locally hire Goans with experience of atleast 2 years or more in the IT industry outside Goa. This will help infuse **stronger and diverse skillset** into the local talent pool.
- h) Incentivize these companies to source all their operational material and service **needs from local Goans and Goan-owned** material and service providers.
- i) These companies in Goa should be given preference and visibly promoted during **campus recruitment** events in colleges affiliated to Goa University.
- j) Create state-wide excitement about innovation through contests like EDC's recently announced **Goa Chief Minister's Startup Challenge** which follows its previous successful but under-publicized instalment of *Goa Technology Startup Contest* in early 2016. This needs to happen at taluka, district and then state level with the entire process, proceedings and results as highly publicized as is typically done for Goan art and culture events and contests. Innovation through technology needs to be made a buzzword and a matter of local pride among Goan youth.
- k) Creatively design measures to incentivize/compensate local startups which suffer high attrition due to entry of any mid-size or bigger technology company into Goa as a result of the government's proposed promotion of IT industry. This needs to be done to **alleviate the short-term pain of small local companies** who will definitely benefit in the medium to long term from a larger diverse talent pool besides greater business opportunities and funding available to them as a result of Goa's growing stature as a credible IT destination.
- l) Provide high incentives/rewards for local companies which successfully create and register their **Intellectual Property (IP) and patents** at the national and global

levels. Formally recognize the international valuations of such intangible assets as collaterals for loans and financial assistance to the companies.

- m) **Incentivize local industries in Goa** like shipbuilding, pharmaceutical, tourism, mining, manufacturing etc. to use local ITeES (IT enabled Engineering Services) besides general IT service providers. This will mutually benefit the local industries in terms of engineering and cost efficiencies, and the local startups with greater business opportunities.
- n) Incentivize **local manufacturers to upgrade to automation** using IT, especially IoT (i.e. Internet of Things). This will ensure product quality, improve operations & enhance production. Standardization in products will give them a competitive edge.
- o) **IMPORTANT NOTE:** Our manifesto intentionally **proposes incentivizing** education, employment and business opportunities for Goans in the Goan IT industry but **not mandatory reservations** for the following reasons:
- **Goans have excelled** through their talent and hard work across different fields in India and abroad creating high quality of life for themselves and others. It's time we did the same here in our own Goa!
 - **Gross ill effects of job reservations** are evident across India in terms of severe degradation of our productivity, innovation and development as a nation.
 - Success of IT industry, in particular, depends directly on individual expertise and productivity of its workforce making **meritocracy essential** for its survival.
 - Instead we Goans must use the proposed **incentives to educate and skill** ourselves, learn fast and work hard (like we usually do outside Goa but tend not to when in Goa) to rightfully earn our place in the Goan IT industry with our heads held high without anybody's patronage or favors. At a societal level, we Goans have to change our priorities from being overtly distracted by local factors (i.e. religious, political, cultural, leisure, complacency etc.) to being **thoroughly professional** in our commitment to our productivity and quality at work.
 - Protectionist measures like reservations are counter-productive as these discourage IT companies from investing in Goa since it creates hurdles in **staffing key skills and profiles** which may not be locally available, especially in the crucial initial years of their operations in Goa and till the Goan IT industry matures to steady-state.
 - The crucial end-result of **majority Goan workforce in the Goan IT industry** can be positively achieved through the state government defining aggressive, progressive incentives for the local workforce component which are then moderated with time as the Goan IT-relevant educational output and the reverse brain-drain of Goan diaspora gets aligned with the Goan IT industry needs.
 - Let's not fall prey to convenient-looking job reservation demands unless; we are looking for fake prosperity without hard work, and we do not want the Goan IT industry to materialize, leading to further worsening of our current socio-political-economic scenario. **Let's rise with our heads held high through hard work!**

13. **Reform the entire state-level education system** of Goa to create a sustainable, high-quality, skilled local IT workforce. Current terrible state of Goan computer education → unskilled Goan youth → poor Goan society riddled with social ills.
- a) **Revive Master of Technology (M.Tech.)** program of Goa University which has been shut down since couple years due to politics among local higher-education institutions compounded by the current government's inaction on the matter. This course was the best Masters-level technology course in Goa given its curriculum, integration with IT industry and its academic output. Goa must have such high-quality Computer Science education accessible for Goans in order to locally create a quality technology research ecosystem.
 - b) Make minimum **4-month internship** integral and mandatory to final year curriculum of all professional courses offered in Goa so that the students are industry-ready when they have finished their courses. Presently the huge gap between the industry needs versus our academic output has been putting our Goan students at a major disadvantage versus their peers from Indian metros.
 - The internship should involve doing real industry work with a company, government body or other institutions based on the student's stream and should preferably comprise of a clearly defined **real-world problem-solving or new R&D project** avoiding repetitions of earlier projects done by others or replication of those available on internet.
 - Besides the final evaluation, the process must involve a **monthly brief progress report and review** by the faculty in-charge published on the institution's website for public scrutiny.
 - Checks need to be in place to ensure that the **students' availability is not misused** by sponsoring companies/bodies to get just their non-value-adding clerical and non-technical work done.
 - Students resorting to **misuse/misrepresentation** of their work must be penalized with but not limited to loss of an academic year.
 - c) Incentivize **final year projects** to be carried out by students against identified local, national and global needs and issues in order to help the students relate their studies to the real world. And the outputs of such projects to be made public on completion for accountability, transparency and awareness.
 - d) Engineering colleges, polytechnics and other technical institutes must incorporate **latest design and planning software** in their curriculum to ensure that their students are geared up for the world of IT-enabled engineering.
 - e) Promote **inter-institutional contests, exhibitions and seminars** from school-level upwards on use of modern technology in all spheres of human activity in order to create awareness and healthy competitiveness.
 - f) Create an **integrated eLibrary network** involving the State Central Library along with libraries of all educational institutions in Goa so that books, reference material and information about past projects/initiatives at any institute are available to others resulting in significant cost savings for the participating institutes and their students.

- g) Establish formal and publicly transparent **grading of all Goan teachers** (especially Computer Teachers) and educational institutions from schools to colleges against global benchmarks to raise the standard of teaching in Goan institutions.
- h) Provide subsidized educational **loans to Goan students for higher/specialized studies** within or outside Goa with principal amount payback discounts linked to successful completion with higher scores within the standard course timeframe. **Incentivize students to return back** to Goa on course completion and remain employed, and/or run a related business, in Goa atleast for 5 years.
- i) Incorporate the latest but relevant **educational trends** to ingrain lateral, scientific/experimental, innovative and applicative thinking in our students, right from early school levels through experiential, hands-on learning rather than the current rote learning.
- j) Mandate use of various **free and paid online learning platforms** and resources like [Agastya Foundation](#), [Khan Academy](#), [code.org](#), [Udemy](#), [Coursera](#), [edX](#), [Stanford](#), [Harvard](#), [Berkeley](#), [MIT](#), [Carnegie-Mellon](#) etc. for quality **teaching** and **learning** of all subjects in Goan schools and colleges. And also for **skill-development** aligned to the needs of Goan IT industry with 50% expense reimbursement of costs on successful completion of the course, or preferably the related certification.
- k) Mandate the use of **low-cost but rugged hardware** like Raspberry Pi (and others) to replace the delicate, conventional bulky CPUs, 70-80% of which have been dead for past 5 years (due to non-AC, dusty environment) rendering Goan school Computer Labs non-functional and as many Goan student batches as computer illiterate and at a severe disadvantage in today's technological era. As proven by GITP's Project GEIT pilot with Raspberry Pi kits for more than a year now in 3 schools, **within Rs.2 crores each of the 450 schools in Goa can be provided with 10 such devices to replace the dead CPUs and the Computer Labs could come alive within a month!** Current government has disregarded our repeated presentations and reminders on this and is instead proceeding now at the last minute with ordering the conventional delicate, bulky CPUs which will not survive the next 2 monsoons. And the 10s of crores that will be spent on these will be a criminal wastage of precious public funds.
- l) Mandate direct supply of **GBBN broadband connection** to the schools instead of the current arrangement via local Panchayat due to which the connection remains down most of the time impeding genuine attempts at using the internet for educational purposes in the village schools.
- m) Mandate use of **Free Open Source Software (FOSS)** instead of the current Microsoft Windows and Office setup wherein 90% of all licenses in Goan school Computer Labs are found to be invalid/pirated despite government having spent crores on it. Linux based Operating Systems like Ubuntu coupled with LibreOffice (among many other such free options) more than suffice for all school-level educational purposes today.
- n) GITP's offer to **train all Goa school-level Computer Teachers** for 3 full-days on the above mentioned, but similar-to-Microsoft Office, FOSS at no cost has been open to the Goa government since January 2016 and will remain so for the new government too.
- o) **Overhaul the Computer Education syllabus** to align with the above changes. Goa Board (std. 9-12) has already begun this work which is commendable. However the

Directorate of Education has been making lame excuses to avoid doing the same for std. 8 and below, and this needs to be fixed at the earliest.

- p) Institutionalize **vacation technology hands-on exposure camps** for Goan students to get exposure to the latest cutting-edge technologies through live demonstrations and interactions with experts and academicians. GITP's **Project GEIT** (Goans Empowered with IT) has completed 3 successful such vacation camps since Diwali2015 and has sparked 300+ Goan school students on the power of creative IT within their reach. GEIT's cascading effect is gradually surfacing with schools whose students attended our camps now themselves taking up similar technology events and exhibitions on their own and we are sure this will spread further.
 - q) Introduce **Entrepreneurial Training** as part of syllabus through experiential training programs from std.8 onwards so that business orientation of young Goans can be sparked from an early age. All programs should culminate in students being able to write out age-appropriate business plans that are acceptable for submission to EDC, banks and finance institutions, or to pitch before Investors.
14. Goa is a **globally recognized tourism brand** name due to its pristine beaches, unique history, architecture, culture and warm-hearted people. This is a great asset for an intellectual and creative industry like IT and must be leveraged to attract the best national and global talent on temporary basis to work out of Goa along with our local talent in the process helping raise our local skills and capabilities.
- a) Companies based in Goa could easily leverage the readily available local **tourism infrastructure** for accommodation and leisure of these visiting experts.
 - b) Incentivizing this in Goan villages will help our **locals monetarily benefit** from the services they could provide.
 - c) This would add **Technology Tourism** as another dimension to Goa's tourism industry bringing higher-spending visitors to Goa versus the current predominantly budget tourists.
 - d) Beach Incubator Camps or **Tech-on-the-Beach Festivals** could be organized as annual features bringing the best of national and global experts and innovators to Goa. This would be a productive and progressive use of our beautiful beaches rather than the drug-laden music festivals.
 - e) Many national and global technology-related companies/associations/institutions (viz. Gartner) have been organizing their annual conventions/seminars in Goa. Goa government must **mandate a 30min presentation slot** at these events to create awareness about the local Goa technology industry and in return provide some simple incentives like waiver on some tax/fees for the event or gift a curated assortment of the best quality local produce/products to all event visitors.
 - f) With Goa's available modern infrastructure and state government's experience in organizing international events like IFFI, GBF, BRICS, Defense Expo etc. now Goa needs to be aggressively marketed as an exciting location for **national and international technology events, conferences, conventions, exhibitions** etc. like the CeBIT, GITEX and others with atleast 2-3 such events happening in Goa every year. Ensure that local Goan youth and companies get discounted, if not free, entries to these events to create awareness, provide exposure and networking.

15. Many Goans and people of Goan origin are found across the globe in senior and influential positions in companies, governments and other institutions who, for their love of Goa, would gladly support and enable the Goa government initiatives if genuine and professionally managed. Proactively identify and connect such Goans to the local IT ecosystem here so that their support helps it scale-up especially in terms of establishing international collaborations with Goa government, sourcing IT business opportunities from abroad for local Goan technology companies besides other benefits of a **global Goan network**. Through our limited resources and network GITP submitted more than 3 dozen technology industry related leads/opportunities with specific contacts to the current government over the past 2 years yet the government has failed in taking a single lead to its fruitful conclusion with no action taken at all in most cases.
16. The natural charm of Goa being predominantly a village-state can be preserved intact if the government aggressively pursues the **IT Anywhere** concept rather than just the conventional industrial estate/park model which runs of risk of congesting Goan cities like Bangalore, Pune and other IT hubs of India. For the long-term sustainability of the Goan IT industry this is necessary and also feasible given the semi-urban infrastructure across Goa along with literate youth and the virtual nature of the IT industry which presents this exciting opportunity to build a unique network of Micro Development Centres (MicroDC) or co-working spaces in Goan villages or village-clusters which could then be linked up to the IT Park(s). **Instead of villagers going to the cities for jobs, here the jobs could be brought to the village** with aggregation of work output of the human intellect across a network of dispersed small groups of individuals.
- a) Entire model could be driven with a **template-based franchise framework** coupled with incentives covering all aspects of setting up, operating and monitoring a MicroDC.
 - b) Each MicroDC to be located in **proximity of local educational institutions** to promote synergies between both thereby creating an atmosphere of technological awareness and orientation for the students many of whom would eventually join it as employees.
 - c) Headcount capacity of each MicoDC to be tied to the demographic of neighboring villages to ensure **local sustainability**.
 - d) Incentivize work done out of such MicroDCs with higher tax exemptions/reductions to promote high-income employment creation directly in Goan villages which eliminates **wasteful expenditure and carbon emissions** on daily commute to the cities.
 - e) Incentivize village-level **collaborations among local bodies** (i.e. panchayat, temples, churches, comunidade, service providers, individuals) to support this model with leased land, facilities and services in return for profit-sharing from its annual revenues.
 - f) Startups, companies and freelancers could utilize these MicroDCs to source their IT and ITES (IT Enabled Services viz. BPO, KPO, call centers etc.) work from Goan villages at **far lower costs**.
17. Periodic factual, transparent and professional-managed **awareness campaigns** must be organized, taking all parties and stakeholders into confidence to avoid ill-informed

opposition to important matters pertaining to creation of high-income employment in Goa viz. mobile towers, IT park, IIT etc. GITP has observed first-hand that local Goans are very understanding and supportive once they are explained the facts without political manipulations. However successive governments, including the current one, have failed to connect with the people to understand their genuine concerns and misconceptions, and address the same in a transparent and pragmatic manner.

GITP concludes its proposed **Goa IT Manifesto 2017** by highlighting its **own work listed below** towards promotion of a locally sustainable IT industry for Goans to prosper in Goa. Imagine what scale could be achieved if our state government machinery does its part well!

1. More than **3 dozen technology-related investment leads/connects** pro-actively provided to and pursued with current government.
2. **Project GEIT – [Goans Empowered with IT](#)**
 - a) Revived 3 school Computer Labs and conducted 15 technology demo sessions.
 - b) Conducted 3 vacation camps (total 29 days) on creative technology since Diwali2015 touching 300+ school children across Goa.
 - c) Presented and followed-up on cost-effective durable hardware and software solutions to fix dilapidated Goan school Computer Labs to CM, DoIT and ITG.
 - d) Actively supporting Goa Board revision of std.9-12 Computer Education syllabus.
3. **Tech Balcao – [Creating awareness, inspiring Goans to prosper in Goa!](#)**

Weekly series on Prudent TV showcasing inspiring stories of Goans using technology in various fields in Goa to create prosperity for self and others against many odds. 22 episodes telecast so far. Also available on [YouTube](#).
4. **GSR – [Goa Skills Registry](#)**

Crowdsourced database of Goans in the Indian and global IT industry to determine the breadth and depth of the Goan IT-relevant talent pool.
5. **[GITP recommendations towards draft Goa IT Investment Policy 2015](#)** from which the key ones that appeared into the final policy relate to support for local IT startups and the entire IT Anywhere section. Refer our revised policy document submitted to government in June 2015 after which the then Director of IT, Shilpa Shinde, was walked through the entire document over a teleconference by the GITP Core Team.
6. **[Memorandum for Promotion of locally sustainable IT industry to government](#)** on July 17, 2014. Originally submitted via email to then CM Manohar Parrikar and his team, and later physically presented to the new CM Laxmikant Parsekar, Industries Minister Mahadev Naik, Assembly Speaker Rajendra Arlekar and the IPB committee on February 7, 2015.

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