

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY



E-GOVERNANCE POLICY DOCUMENT

Policy Statement

TKR College of Engineering and Technology has designed an E-Governance Policy with the primary objective of implementing e-governance in various operations, transactions, and services of the institution for better efficiency, transparency, and accountability. This policy shall apply to the administration, finance and accounts, student admission and support, and examination sections of the institute.

Objectives:

- To install an integrated, user-friendly Enterprise Resource Planning (ERP) solution to automate various modules of institutional
- To implement e-governance in every function of the institution and provide a simpler and more efficient system of governance within the institution and outside as
- To promote transparency and accountability in all the functions of the
- To achieve and create a paperless environment in the
- To provide easy and quick access to

Action Plan

I- Administration:

- The regular functioning of all service units in the office shall be supervised by the authorities through ERP.
- An attendance management software will be used by the faculty and staff to record and track attendance, Internal assessment
- Digital messaging services like SMS, and Mail will be put to maximum use for real time information sharing with parents, students, and staff in relation to absentee intimation, academic performance, holidays and other required
- The administrative office will use advanced Excel and File Management System Tools to maintain
- Make the transition towards paperless transactions by enhancing the use of Google facilities like;
 - Google Sheet: For Data Collection from Various Departments
 - Google Docs: To prepare notices and activities
 - Google Forms: To prepare feedback forms and get online feedback from
- The Administration shall use the e mail service in its communication with Governing Body members as well as teaching and non-teaching
- Regularly publish administrative information, including notices and circulars, on the website and on digital displays at all strategic locations.
- All staff members shall use biometric
- Upgrade to a fully automated, wireless office with a 24x7 internet facility in near
- CCTV cameras will be installed at various places of
- ICT shall be introduced in every administrative function /work.

II- Finance and Accounts:

- The accounts of the institution will be maintained through Tally software and
- All payments/transactions will be through online modes such as NEFT, RTGS, Bank Transfers, UPI,
- Purchase the latest software.

- Make application of software to generate profit and loss, Balance Sheet .
- Generate all the analysis reports through
- Implement appropriate security measures for maintaining confidentiality in
- Provide regular training in updated versions of software to the new as well as existing
- Use automated Payroll Management System in all aspects including salary calculation, salary slips, disbursement of salary to the bank accounts, TDS, Provident Fund, Allowances,

III- Student Admission and Support:

- Use ERP to manage all student data, including course, fee
- Update the college website regularly for real-time information sharing/dissemination, including admission and online transaction interfaces.
- Make a timely update of website by the designated Information and website
- Post regular updates on Alumni portal for information about passed-out students.
- Share Digital Brochure, video teaser, and social media posts on course details, sanctioned intake, placements, and facilities during admission.

IV- Examination:

- Use ERP to handle the entire examination.
- Make the examination records of students available online with an interactive platform for students to view their internal assessment and semester marks/grades and raise discrepancies online, if
- Maintain compatibility of the examination process with the regulations of the affiliating university as far as e-governance policy is concerned.

The Institute shall continuously review and update the approved policy and is committed to its implementation.

Department of Electronics and Information Technology

Framework for Citizen Engagement in e-Governance



सत्यमेव जयते Department of Electronics & Information Technology
Ministry of Communications & Information Technology
Government of India

[April 2012]

Table of Contents

Tables and Figures	3
Framework for Citizen Engagement in NeGP	4
I. Introduction	4
II. Need for Citizen Engagement Framework.....	5
III. Target Audience	6
IV. Citizen Engagement	6
4.1 What is Citizen Engagement	6
4.2 Need for Citizen Engagement	7
4.3 Ways of Citizen Engagement	8
4.4 Core Values for the Practice of Citizen Engagement	9
4.5 Challenges in Citizen Engagement.....	10
V. Citizen Engagement Framework for e-Governance Projects.....	10
5.1 Engagement Framework.....	11
5.1.1. Undertaking Need Analysis.....	12
5.1.2. Defining Degree of Engagement	13
5.1.3. Creating Citizen Engagement team.....	15
5.1.4. Undertaking Engagement	15
5.1.5. Techniques of Engagement.....	16
Annexure I: Existing Citizen Engagement Models & Mechanisms.....	24
India	24
Other Countries	26

Tables and Figures

S No	Detail	Page No
1	Figure 1: Framework of Citizen Engagement	11
2	Figure 2: Public Participation Spectrum	14
3	Figure 3: Citizen Engagement Methods vis-a-vis Project Stages	16
4	Table 1: Needs Analysis vis-a-vis Project Stage	12
5	Table 2: Mapping Techniques of Engagement to Purpose and Project Stage	17

DRAFT

Framework for Citizen Engagement in NeGP

I. Introduction

India is a democratic republic and the philosophy of justice, equality, liberty and fraternity are enshrined in its constitution. The democratic principles of the country flow from the Preamble of the Constitution itself. Democracy is a government of the people, by the people and for the people. Effectively this means that the Government is elected by the people, it is responsible and accountable to the people. One of the ways of ensuring responsibility and accountability is by actively engaging with the public while making policies that impact them directly. However, since independence public participation in policy making has been minimal. Governance was process and procedure centric and generally a top down approach was used in policy making. In addition, the country, given its vast size, federal structure of governance with over 240,000+ local governance institutions and large population coupled with its other complexities viz multi-cultural, multi-ethnic, multi-religious and multi-lingual society, did not make itself amenable to large scale public participation in policy making. Efforts were however made at several levels including by creation of Panchayati Raj institutions, seeking civil society inputs in implementation of large projects, legislation of RTI Act etc. but it was very difficult to consult all stakeholders in any given project.

In the early 1990s, two changes swept across the world – the focus on good governance with increasing non government participation in delivery of public services and Information Communication Technologies (ICTs) and internet – technologies that potentially could connect any and everyone in real time. The concept of e-Government or e-Governance was born through the amalgamation of these two. E-Governance marked a paradigm shift in the philosophy of governance – citizen centricity instead of process centricity and large scale public participation through ICTs enablement.

India also did not remain untouched from the changes sweeping across the world. Several e-Governance projects across the country were implemented that focussed on improving public service delivery, bringing greater transparency in government processes and ensuring more effective accountability. The National e-Governance Plan (NeGP), based on the learning from these projects was approved in May 2006 and comprises of 31 Mission Mode Projects (MMPs) and 8 Components with a vision to “make all Government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency and reliability of such services at affordable costs to realize the basic needs of the common man”. The cornerstones of NeGP are citizen centricity,

identification of services & service levels, centralised planning & decentralised implementation and Public Private Partnership (PPP).

As more and more projects e-Governance are getting implemented, an increasing need has been felt for wider and deeper participation of and engagement with all stakeholders especially public at large to ensure that citizen centricity is maintained in all projects. To enable and support this goal, a Citizen Engagement Framework for e-Governance Projects has been developed for all government agencies.

II. Need for Citizen Engagement Framework

There is now a greater consensus that citizen participation and civic engagement are the building blocks for good governance and e-Governance is a critical component of good governance. Also, as the government is considering the enactment the Electronic Delivery of Services Law, the possibility of e-Government projects becoming pervasive in all domains of public services is increasingly becoming a reality.

It marks a paradigm shift in delivery of public and essential services – from human to technology based interfaces. The use of a technology interface for delivery of services throws up many challenges especially those related to management of change from human interface to technology interface, adoption of a particular technology, differential access to such services etc.

To make it a success, this essentially means creating awareness in, training of and continuous engagement with both the service provider as well as the service seeker to use new tools for better service and more effective interaction with public.

For undertaking such an engagement, it was therefore felt that a Citizen Engagement Framework was required which would enable project owners/implementers to identify

- Objectives
- Opportunities
- Techniques
- Outcomes

III. Target Audience

The Framework has been developed for all e-Governance projects currently under National e-Governance Plan, whether being implemented at Central or State level. In addition, it will be applicable to all new e-Governance Projects being developed by any Department or Line Ministry of Central Government. All other government agencies including Public Sector Undertakings may also find it useful while conceptualising their own projects. It is expected that the utility of this framework will transcend NeGP and will be used for all projects that use ICT-enabled service delivery model.

IV. Citizen Engagement

4.1 What is Citizen Engagement

Unlike traditional types of engagement – Communication and Consultation, Citizen Engagement is an interactive two way process that encourages participation, exchange of ideas and flow of conversation. It reflects willingness on part of government to share information and make citizens a partner in decision making.

Ideally, citizen engagement requires governments to

- Permit participation in agenda-setting, and
- Ensure that policy or project proposals that are generated as a result of this engagement are taken into account while making a final decision

Citizen engagement may be undertaken at all stages of the policy or project development process and is an iterative process that continually infuses citizens' priorities in policy making/project implementation.

In processes of citizen engagement, citizens may be represented themselves as individuals and sometimes through interest groups such as civil society organisations.

Engagement has been understood and explained in a variety of ways. Engagement as

- Contributor
- Organisation builder
- Empowering process

- Combination of all the above

Politically, the meaning is inevitably linked to the relationship between the citizens and the state institutions.

However, mostly, citizens are often considered either as beneficiaries of government welfare programmes or in PPP terminology referred to as customers, neither of which truly reflects the government-citizen relationship.

Active engagement gives the right to hold others accountable, and accountability is the process of engaging in participation. It seeks greater accountability from the service providers through increased dialogue, consultation and by monitoring and assessing performance externally and mutually.

Citizen engagement goes beyond conventional public consultation by enabling citizens to do more than simply voice an opinion – it also allows them to participate in the deliberation process leading to decisions.

4.2 Need for Citizen Engagement

As the government is incorporating ICTs into the delivery of G2C services, there are hardly any embedded mechanisms to facilitate the voice and space for citizen participation in e-governance. This is especially true for the weakest and the most marginalised sections of society for whom the e-Governance projects are created to serve the most.

In India, the problem is compounded by

- High Rural Population – making outreach and determination of service access point difficult
- Low Literacy Rates – necessitating Assisted Access model of service delivery
- Low Rural Tele-density – lowering the outreach of services in rural areas
- Multi-Lingual Population – necessitating delivery of services in local languages

One of the reasons cited for the high failure rate of e-Governance projects across the world, is poor understanding of user needs. It is therefore believed that Citizen Engagement would result in

- Improved Project Conceptualisation & Decision Making including
 - Identification of services
 - Definition of service levels
 - Identification of preference for Channels of service access

- Appropriate Process re-engineering
- Increased Awareness leading to
- Increased uptake of services
- Avoidance of conflicts
- Increased Sustainability
- Increased transparency & Accountability
- Community Empowerment leading to
- Better monitoring
- Capacity Building

In addition, Public participation also enhances

- Citizens' recognition of their responsibility to take action to improve their lives and the provision of basic social services
- Citizen ownership of development processes
- Implementation of development programs

By participating in policy making, citizens help ensure that their needs and interests are taken into account in decision-making processes that affect their lives at both national and local levels. Furthermore, public engagement improves the political position of marginalized or vulnerable groups, such as women, youth, and minorities that are often not taken into consideration.

4.3 Ways of Citizen Engagement

A variety of mechanism may be adopted to incorporate and promote citizen engagement in e-Governance Projects.

a) **Information sharing:** In order to generate awareness and to prepare the citizens, elected representatives and other stakeholders, wide range of information should disseminated. It includes display of Citizen's Charter with listing services and service levels, roles and responsibilities of officials and escalation mechanism etc. In addition, regular meetings and interfaces may also used to share information. For many departments and services, mobile based voice or text services and web based presence also serves as an additional channel for information sharing.

b) **Consultation:** Consultative meetings with the stakeholders are to be undertaken at different stages of project cycle at regular intervals. Each intervention should be discussed with the citizens, elected representatives, local civil society groups and other stakeholders to get their perspectives included in the designing of the interventions, and thereby increasing the chances of ownership among various stakeholders. Such consultations may be undertaken both online as well as face to face.

c) **Joint assessment:** Participatory assessment and monitoring with the stakeholders, particularly the identified service seekers, are used as tools for enhancing citizen engagement. These include use of a variety of techniques such as joint citizen monitoring, meetings with the elected representatives etc.

d) **Shared decision-making and collaboration:** A range of participatory planning techniques including participatory urban planning at the ward level, comprehensive zonal planning as well sectoral plans like Solid Waste Management (SWM) at the city level may be used for collaborative or shared decision making. It involves engagement of various stakeholders at every stage of the planning process. The most often quoted example of this technique is from Porto Alegre, Brazil.

Some examples of citizen engagement in India and other countries is placed at Annexure I

4.4 Core Values for the Practice of Citizen Engagement

It is important to note that if care is not taken while identifying the groups and mechanisms for interaction, citizen involvement can lead to a sense of disempowerment and a reduced sense of agency, and participation can be perceived as meaningless, tokenistic or manipulated. Therefore, following must be kept in mind while undertaking citizen engagement:

- Public participation is based on the belief that those who are affected by a decision have a right to be involved in the decision-making process.
- Public participation includes the promise that the public's contribution will influence the decision.
- Public participation promotes sustainable decisions by recognizing and communicating the needs and interests of all participants, including decision makers.
- Public participation seeks out and facilitates the involvement of those potentially affected by or interested in a decision.
- Public participation seeks input from participants in designing how they participate.
- Public participation provides participants with the information they need to participate in a meaningful way.
- Public participation communicates to participants how their input affected the decision.

4.5 Challenges in Citizen Engagement

- a) **Limited Trust in Government:** The primary challenge to initiating consultation is trust building. It is seen that generally, government actions are often low on public trust due to many reasons such as not fulfilling promises that have been made publicly; perception of high corruption and nepotism; not taking into consideration community ideas on priority areas for development etc. There is also scepticism towards the reason why participation is being encouraged. Often, it is viewed as a way of showcasing of political strength, or as a token form of consultation and not really to obtain input to improve government priorities.
- b) **Political Reluctance:** Public participation is essentially a political process and is often not formalised or conducted in a structured manner. As such, people are often reluctant to participate. Furthermore, it is often difficult to relate engagement to positive change in everyday life.
- c) **Limited capacity to engage:** In order to engage meaningfully in public policy debates, it is essential that the participants have knowledge about issues at hand and policy-making processes. However, given the limited availability of knowledge and sometimes requirement of specialised skill sets viz. Legal, technical etc. many people believe that their capacity to engage in such processes is limited.
- d) **Lack of Commitment:** Engagement in policy making processes is a long drawn process and often requires individuals to make long term commitments about time and other resources. These are usually limited, thereby limiting the type and continuity of participation.
- e) **Exclusion:** Consultative processes may also be seen as a way of legitimising the view of the dominant groups. In addition, the manner of consultation – time, location, mechanism of participation, language etc. may also result in exclusion of most marginalized and vulnerable groups.

V. Citizen Engagement Framework for e-Governance Projects

e-Governance projects are characterised by large outlays and often implemented through Public Private Partnerships. Given the limited penetration of PCs and broadband, challenges of basic literacy, computer literacy and English literacy – the current currency of internet, it is important to engage with citizens and other stakeholders of e-Governance projects. In order to meaningfully engage with citizens, a detailed study of need, stakeholders and

frequency must be undertaken. This section elaborates on the essential elements of the Citizen Engagement Framework for e-Government projects.

5.1 Engagement Framework

In order to ensure a meaningful engagement with citizens, all interactions must be undertaken in a well thought out and planned manner, wherein all stakeholders must be able to voice their inputs/concerns, due consideration to all must be given and a proper feedback mechanism must be put in place to inform all those participated about the decisions and the reasons thereof.

To help department implement such an engagement, a Framework for Citizen Engagement for e-Governance projects has been defined. The Framework illustrates critical elements necessary to ensure smooth and meaningful engagement and provides a brief description of each element. Diagrammatically, the Framework can be represented as under:

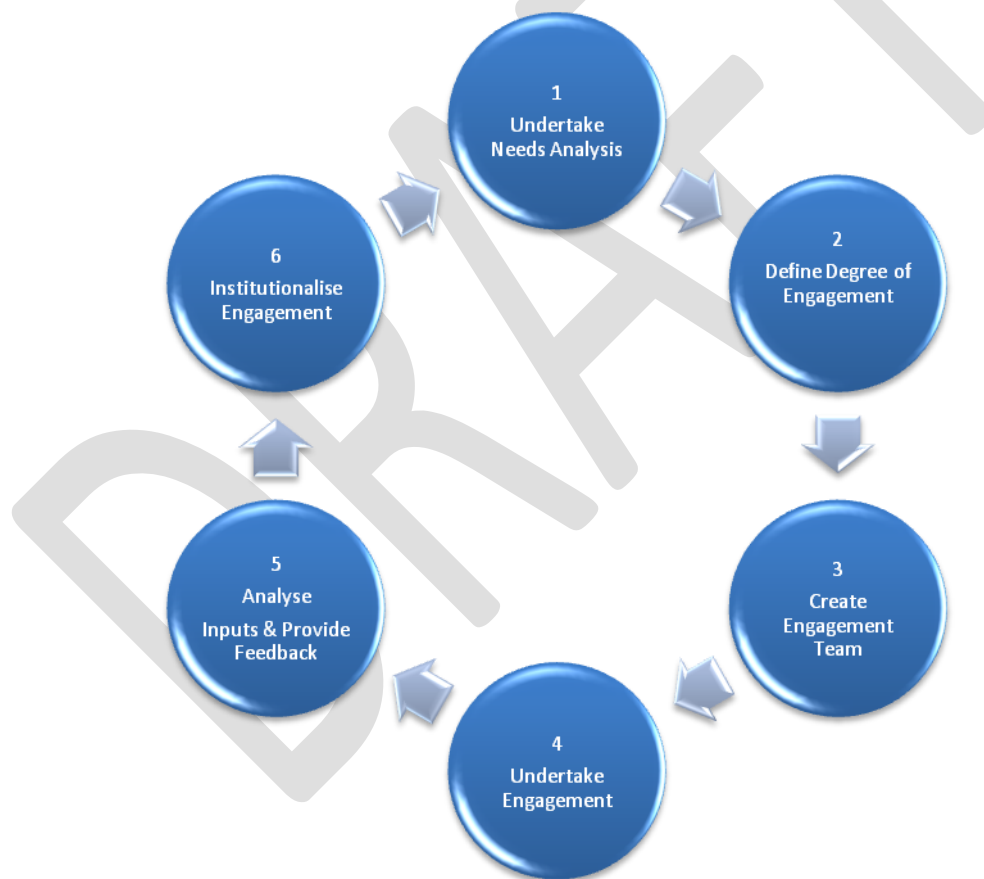


Figure 1: Framework of Citizen Engagement

5.1.1. Undertaking Need Analysis

The first step in citizen engagement process is the identification of need or objective for which such an engagement is being proposed. Some of the objectives, based on project stage may be as under:

- **Conceptualisation & DPR Preparation:** to ensure that the scheme is need-based and drawn up in consultation with community, serving especially the poor and the disadvantaged
- **Implementation - Pilot & Roll Out:** to ensure that envisaged services are being delivered, properly and to right people
- **Post Implementation stage:** to ensure that type & quality of work is in tune with initial identified requirement.
- **Project Enhancement - After the completion of work:** to ensure continuous improvement in the project deliverables

It is easy to identify need for engagement for a new project. However, for ongoing projects, it is often difficult to determine such points of interventions. However, opportunities to engage with citizens exist at all stages of the project. For the purposes of this Framework, a project life cycle has been broadly demarcated into 4 stages namely Conceptualisation and DPR preparation, Pilot & Roll Out, Post Implementation and Project Enhancement. For e-Governance Projects some of the needs for Citizen Engagement in e-Governance projects are mapped below against the stages of the project.

S No	Project Stage	Needs Analysis
1	Conceptualisation & DPR Preparation	<ul style="list-style-type: none"> • To define scope of project • To identify Services to be included • To identify existing & desired Service Levels • To identify access points and channels • To determine ability and willingness to pay for delivery of service through alternate channel/s • To identify current pain points & opportunities for process re-engineering • To identify synergies/dependencies with other

		departments/processes/institutions
2	Pilot & Roll Out	<ul style="list-style-type: none"> • To seek feedback new channels of service delivery • To measure adherence to service levels • To measure satisfaction of service delivery • To understand bottlenecks/challenges in service delivery • To identify areas of improvement in the re-engineered process
3	Post Implementation (Operations & Maintenance)	<ul style="list-style-type: none"> • To undertake impact assessment of project • To determine quality of service rendered • To determine impact on overall governance parameters viz. Transparency, accountability, corruption etc.
4	Project Enhancement	<ul style="list-style-type: none"> • To seek inputs for Project Enhancement from the perspective of <ul style="list-style-type: none"> ▪ New services to be added ▪ Adequacy of service levels ▪ Adequacy of process re-engineering ▪ Enhance quality of service

Table 1: Needs Analysis vis-a-vis Project Stage

5.1.2. Defining Degree of Engagement

In an ideal scenario, the citizens may collaborate from conceptualisation to implementation of the project and may even be empowered to reject or alter the project design at a later stage of the project. The spectrum of citizen engagement can be represented visually as under:

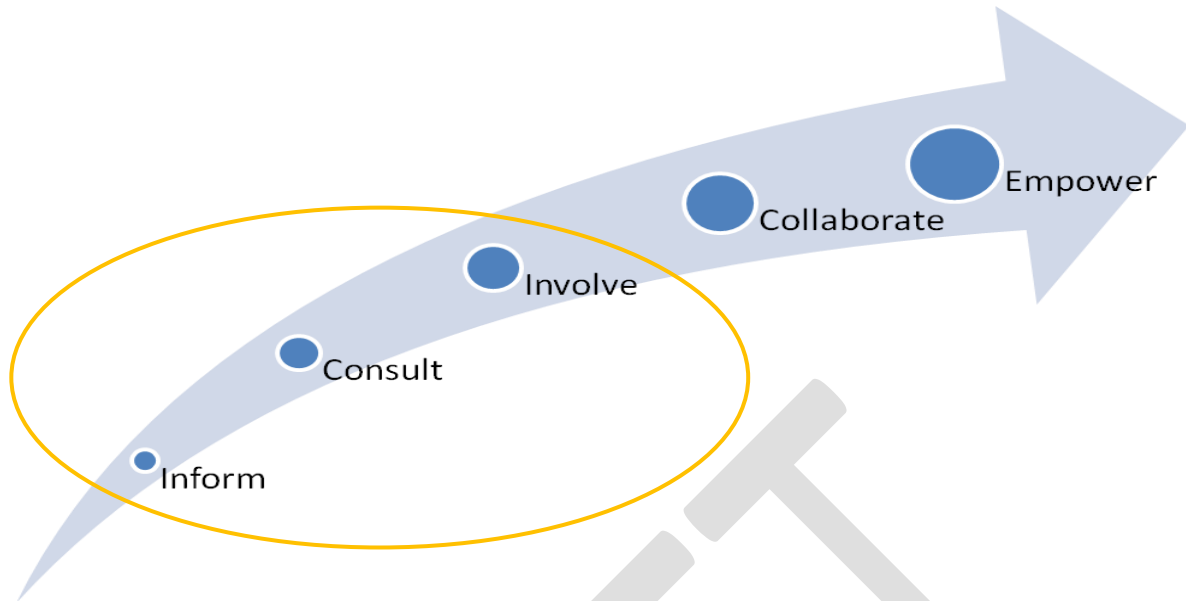


Figure 2: Public Participation Spectrum (Source: IAP2 IAP2. (c) 2007 International Association for Public Participation)

However, in real life, project managers must define the intervention points and degree of engagement. It is recommended that as a first step in engagement, for e-Governance projects, the implementers may seek engagement only in the first three levels of the spectrum i.e. Inform, Consult & Involve. However, as the engagement process matures, the final goal should be collaboration and empowerment.

The engagement must be part of the primary plan of the project implementation cycle and it is also necessary to define the frequency and stage of the engagement at the project planning stage. Some of the key questions that may inform degree and depth such an engagement include:

- Goals & Objectives (long term/short term engagement, establishing baseline, feedback on service etc.)
- Project stage (Conceptualisation, Implementation etc.)
- Stakeholders involved (individuals, citizen groups, elected representatives etc.); and
- Legal and administrative imperatives (legal requirements for undertaking such an activity)

5.1.3. Creating Citizen Engagement team

Since the process of citizen engagement is ongoing, it is recommended a citizen engagement team may be created for the project. This team ideally should consist of

- Internal stakeholders - decision makers, service providers, service/process influencers
- External stakeholder – beneficiaries, civil society organisations, elected representatives

The diversity of team would depend upon the breadth of the project. For example, if the project is on Panchayats or Municipalities, then members of Gram Panchayats or Municipal Corporation may be included in the team, while for projects related to business services may includes members of business associations. The team would be entrusted with the following responsibilities:

- Developing background information
- Publicizing the effort
- Designing benchmarks and criteria for evaluation
- Identifying and recruiting participants
- Selecting tools for citizen participation
- Reporting the outcomes of the process
- Making recommendations based on the outcomes

5.1.4. Undertaking Engagement

The process of citizen engagement is cyclical and can broadly be divided based on the stage of project development. A pictorial depiction of citizen engagement based on project life cycle and possible tools and techniques that may be used in each stage is given below:

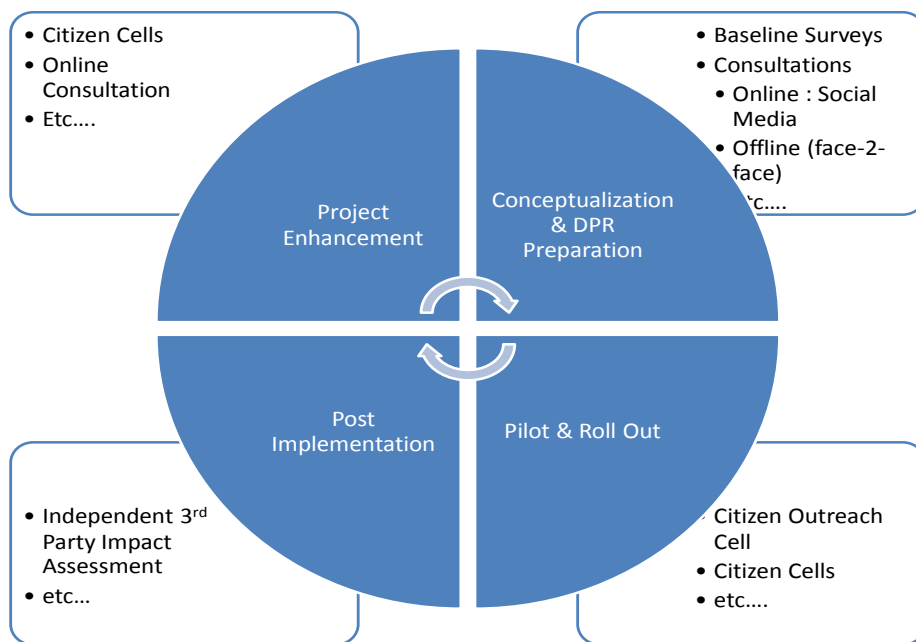


Figure 3: Citizen Engagement Methods vis-a-vis Project Stages

5.1.5. Techniques of Engagement

There is no one right way of undertaking Citizen Engagement. It will always be context specific and the outcome will depend upon planning, commitment and capacities of involved stakeholders. However, techniques may broadly be classified into online or ICT-enabled and offline or face-to-face. Of the Online techniques, of late, social media has gained tremendous following and is being used across the world for engaging with and informing citizens. Keeping this in view, the Government of India is framing separately Framework and Guidelines for use of Social Media. It must be kept in mind though that although at times more visible, social media is but one platform and mechanism for citizen engagement. Given below are some of the techniques that may be used for Citizen Engagement:

S N o	Purpose	Technique	Methods		Advantages	Limitation	Stage of Project Implementation
			Off-line	On-line			
1	Inform	Mass Media – Print, TV, Radio, Community Radio	√		Wide Spread Reach Multi-Lingual Messaging Quick Messaging	Huge Costs Many citizens live in 'Media Dark' areas i.e. where no mass media reaches Specific message targeting not possible Often highlights only negative aspects	All
		Citizen Charter, Bulletin Boards, newsletters	√	√	Transparent way of communicating about services & Service levels Manages service expectations Can also be displayed over internet	Often located in places where it cannot be seen in rural areas Low literacy rates especially limits its use Availability of internet is very low	Pilot & Roll -Out
		New Media – Websites, Portals, Social Media sites, Mobile access devices		√	Viral nature ensure explosive communication Both internet and mobile based communication can be used	Specific interest based targeting possible Excellent for short messaging Limited availability of internet Not amenable for long messages and most users in rural areas have basic phones thereby limiting type of messaging	All
		Face to Face	√		Detailed	Logistical and	Pilot & Roll –

		Meetings			discussions can be held	managerial issues Trust issues	Out; Project Enhancement
2	Consult	Focus Groups	√	√	Facilitates discussions on specific issues Provides insights into perceived priorities Highlights key issues which need to be addressed Perspective of specific target groups can be discussed Different groups can discuss different aspects of projects based on level of expertise, potential impact etc.	Logistical, Time and managerial constraints Trust issues Can lead to further marginalisation of under-representative groups Difficult to comprise perspectives of divergent groups Difficult to consult large population When undertaken in an online mode, restricts participation due to access of internet, language and ability to use new technologies	All
		Surveys	√	√	Ability to consult large no. of people Consultation can be done in a structured manner Evidence/Inference compiled can be extrapolated over large population Can be done in both online as well as offline method	Huge costs Can be undertaken only with help of experts Limited flexibility for mid-course correction Quality of Response is heavily dependent upon questionnaire structure Online survey's findings are	All

						often not statistically significant and extrapolation is difficult Online surveys have limited applicability due to limited access to internet Consultation of mobile devices (sms based) have limited applicability Response rate uncertain	
		Expert Panels	√	√	Very useful for complex projects Can get expert opinions for both pros and cons of the project	Choice of panellists may lead to marginalisation of certain points of view Challenging to manage contrasting perspectives Costly to conduct Not always conclusive	Pilot & Roll – Out; Project Enhancement
		Focus Groups	√	√	As given above	As given above	All
		Delphi Process		√	Structured process of getting inputs where responses and conclusions shared Controlled feedback mechanism Very useful in case where participants are in different geographical locations Can be conducted	Limited utility for complex, multi-dimensional modelling Time consuming – requires several rounds of iterations	Pilot & Roll – Out; Project Enhancement

					anonymously so that respondents feel comfortable expressing deeply divergent views Useful to explore specific, one-dimensional issues		
		Open Meetings/Open days	√		Feedback possible from all stakeholders who choose to be present Can result in greater transparency and accountability	Unless conducted with specific agenda and moderated expertly, they can often degenerate into laissez faire discussion mode Logistical challenges May lead to accommodating voice of only dominant groups Difficult to manage new expectations	Pilot & Roll – Out; Project Enhancement
3	Involve	Citizen Outreach Centres	√		Constancy & Consistency - Fixed Location and time - builds trust Enables involvement on wide ranging issues Provides space to build capacities and enable group as well as individual involvement	Resource intensive - Needs space and manpower Extensive training of facilitators required Difficult to manage new expectations	Pilot & Roll –Out
		Focus Groups	√	√	As Above	As Above	All
		Workshops	√		Excellent for process mapping, identifying bottlenecks and constraints Provides insights into multiple perspectives which	Time and resource intensive Bias/Diversity in selection of participants difficult to manage	Project Conceptualisation; Pilot & Roll –Out; Project Enhancement

				can be deliberated upon Can build new relationships Can build ownership	Difficult to manage new expectations	
		Qualitative Interviews	√	In-depth Exploration of issues Useful for engaging people who may not prefer to speak in groups/give voice to un-heard Useful for gaining insights into sensitive issues	Locating and convincing the interviewee Time consuming Extrapolation of findings is difficult Resource intensive – local language and domain experts required	Project Conceptualisation; Project Enhancement
4	Collaborate	New Media – Social Networking, Crowd Sourcing, Wikis	√	Can be an ongoing or issue based Can reach out to both experts as well as non-experts Helps generate multiple ideas/potential solution in small amounts of time	Often feedback is more generic rather than specific in nature Difficult to compile feedback Not easy to engage with marginalised and under-represented section	Project Conceptualisation; Post Implementation ; Project Enhancement
		Participatory Planning	√	Builds Ownership Builds trust Builds Transparency & Accountability Ensure community's priority based resource allocation Increases opportunity for direct engagement in decision making process Helps in demand projection and management of expectation	Requires intensive training for internal staff Time-consuming Difficult to achieve common understanding of common needs – differing expectations or goals Difficult to maintain independence and	All

					Instills public confidence	participation of different stakeholders Constant fluidity and dynamism in process	
5	Empower	Participatory Planning	√		As above	As Above	All
		Stake-holder Dialogue and Concerted Action	√		Joint Planning & Decision making Brings different stakeholders to strategic consensus Identifies opportunities to improve information exchange and decision-making between stakeholders Promotes innovations Promotes identification and exploration of multiple options	Limited capacity/experience to commence the process Multiple/conflicting roles of facilitators Intensive training of all concerned is required Group interests may dominate individual/overall societal interests Non-homogeneity of interest groups Low levels of trusts	All
		Participatory Learning & Action	√		Appraisal, analysis and action done by local people Emphasises on local knowledge and uses group dynamics Facilitates information sharing and learning	As Above	All
		Matrix Scoring & Ranking	√		Illustrates criteria people use to make decisions Helps to gain an understanding of peoples' priorities	As Above	All

					and evaluation criteria		
		New Media		√	Increased Transparency	Access Issues Confusion with technology and content Lack of trust of the system	All

Table 2: Mapping Techniques of Engagement to Purpose and Project Stage

DRAFT

Annexure I: Existing Citizen Engagement Models & Mechanisms

India

1. **National Capacity Building Framework**, Ministry of Panchayati Raj (MoPR): MoPR has designed a National Capability Building Framework (NCBF), which outlines a comprehensive approach towards building the capabilities of Panchayats. NCBF was created inter alia for

(a) Improving the Gram/Ward Sabha functioning, particularly to provide opportunities to the poor, women and scheduled castes/scheduled tribes, to assert their demands through participative planning, monitor plan implementation and to hold their local governments to account through invoking Right to Information and social audit;

(b) Developing capacity of 'lynchpin capacity providers' and effective mechanisms to engage civil society and the private sector in the delivery of capacity development services; and

(c) Creating conducive socio-political environment through sensitising the media, political parties, representatives in the legislatures, civil society organisations and citizens to accepting and promoting local governments.

(Source: MoPR: http://www.pri-resources.in/OverView/NCBF_Report_02-01-10.pdf)

2. **Citizen Report Card (CRC)**: Citizen Report Card is a simple yet powerful tool to provide systematic feedback to public agencies from users of public services. Some examples from India are given below.

a) Bangalore: The Citizens' Report Card in Bangalore was a civil society initiative undertaken in 1993 to monitor government services in terms of efficiency and accountability. The exercise gathered citizen feedback on performance of public agencies and disseminated the findings to the citizenry, thus exerting public pressure on the agencies to initiate reforms. A seven-point rating scale facilitated quantification of citizen satisfaction levels with regard to service delivery, dimensions of corruption, staff behaviour, and so forth. The report card exercise was repeated in 1999 & 2003, to provide a comparative assessment of the progress since 1993.

(Source:

http://siteresources.worldbank.org/INTEMPowerment/Resources/14832_Bangalore-

[web.pdf](#);

and

<http://www.sasanet.org/documents/Case%20Studies/Bangalore%20Citizen%20report%20card.pdf>)

b) Nagrik Sahyog Kendra or Citizen Cells, Gujarat: In the post earthquake scenario in 2006 in Gujarat, as part of the Reconstruction Programme in Bhachau, Kutch, an Owner Driven Housing Process was conceptualised. The Nagrik Sahyog Kendra were an integral part of the process and were entrusted with the responsibility for

- Educating citizens about all associated processes, guidelines and the progress through 'Nagarvani' and community meetings;
- Holding Public consultations for selection of beneficiaries for each participating NGO;
- Revising beneficiary list on the basis of on site physical verification by different NGOs and their feedback;
- Facilitating periodic coordination meetings along with BhADA;
- Appraising BhaDA on operational issues;
- Facilitating process of land regularisation for all the houses constructed/ retrofitted;
- Preparing case files for land regularisation process;
- Following up and ensuring provision of legal documents for land to each beneficiary

(Source: <http://www.unnati.org/pdfs/books/OwnerDrivenHousingProcess.pdf>)

3. **Social Media:** This new channel of engagement is becoming increasingly popular amongst the various government agencies, departments and ministries. The Prime Minister's office launched its social media initiatives from January 2012. The PMO currently uses Twitter (<http://twitter.com/#!/pmoindia> Last visited on April 27, 2012), FaceBook (<http://www.facebook.com/pages/Indian-Prime-Ministers-Office/107934225905981> last visited on April 27, 2012) and YouTube (http://www.youtube.com/user/PMOfficeIndia?ob=0&feature=results_main last visited on April 27, 2012) as its platforms for engagement. The Delhi traffic Police has joined Facebook and Twitter to ease handling of traffic related issues (<http://www.facebook.com/pages/Delhi-Traffic-Police/117817371573308>). The Indore Police Department (<http://www.indorepolice.org/>) has been using a blog, Twitter, online and mobile complaint forms, a Google map of police stations and a digital crime mapper to track criminal activities in the region.

The Maharashtra Police Department (<http://mahapolice.gov.in/>) launched an SMS-based complaint tracking system (CTS), called "Turant Chovis", which promised to quickly redress

citizen complaints by sending a first response within 24 hours and resolving the issue within 30 days. The Public Diplomacy (PD) division of the Ministry of External Affairs saw merit in leveraging social media to connect with the masses. It made its debut on Twitter with the user id "Indian diplomacy". It was used very successfully in the recent crisis in Libya and Middle East. (<http://twitter.com/#!/Indiandiplomacy>)

The Municipal Corporation of Delhi launched a Facebook page last year and created a forum for better interaction with citizens (<http://www.facebook.com/pages/Municipal-Corporation-of-Delhi/106030789427235>). Coimbatore Municipal Corporation will soon be visible on Facebook and Twitter where residents can keep track of day to day development at the municipal corporation. Users can thereafter post comments and reply back for better functioning of the civic body.

Other Countries

1. United States

The US Federal Government has taken several initiatives that encourage and enable citizen engagement. Since 2009, the US government has launched a 3-phased online citizen engagement project, which includes brainstorming for new ideas, seeking ranking of ideas received and incorporating them in policy making. A web based platform has been created and hosted at Challenge.gov that encourages people from all walks of life to contribute to highly technical issues such as space exploration to every day challenges related to public services (<http://challenge.gov/>). In Dec 2010, the US government sought public feedback on a concept for next generation citizen consultation, namely a government-wide software tool and process to elicit expert public participation "ExpertNet" (<http://expertnet.wikispaces.com/Getting+Started>)

2. Canada

The province of Ontario in Canada has a long history of active citizen engagement. Since the early 2000, the state government has been seeking inputs from public and public servants into policy making. In 2003, the government launched the OPS Ideas Campaign on improving public service delivery. Later in 2004 an active campaign to engage public for improving municipal services was launched (http://www.mgs.gov.on.ca/en/IAAndIT/STEL02_046927.html). The Canadian Index of Wellbeing (CIW) is considered the world's leading example of a national system of comprehensive, citizen-based progress and well-being measures. It began in 1999 with a national consultation of Canadian citizens to identify core national values and key aspects of well-being. The Index built a collaboration of representatives of community, universities, business and some government agencies, including the national statistics office of Canada. A framework of eight dimensions forms a framework for measuring the state of national engagement; community vitality, democratic engagement, education, environment, healthy

population, leisure and culture, living standards and time use. The Index has begun to generate comprehensive reports on the state of democratic engagement in Canada and forms the basis for discussion of key aspects of citizen engagement and the models available for increasing these (<http://www.ciw.ca/en/GetInvolved.aspx>)

3. Norway

An electronic public record database for the civil service (OEP) was launched in May 2010. This is the first of its kind in the world. Through this all citizens can get access to the documents of the central civil service. Until now, only journalists had the right to do so. On the OEP it is now possible to access the public records database and make searches in the public journals. All documents sent from ministries, directorates and state agencies are journaled in public files. If one finds something of interest, one may easily require the original document in question. The agency for Public Management and eGovernment (Difi) carries the management responsibility for the service. The Ministry of Government Administration and Reform has been responsible for the development of the OEP (<http://smart-grid.tmcnet.com/news/2010/05/18/4795395.htm>)

4. United Kingdom

The UK Government had released a citizen engagement framework in 2008 that sought to deepen engagement with public on a wide variety of issues including constitutional change, policy formulation, behavioural issues e.g. smoking etc. (http://webarchive.nationalarchives.gov.uk/+http://www.justice.gov.uk/docs/citizen_engagement.pdf). These efforts were further expanded through a Digital Engagement Blog (<http://digital.cabinetoffice.gov.uk/projects/> last viewed on April 27, 2012). The UK government is also releasing public data to help people understand how government works and how policies are made (www.data.gov.uk) Data.gov brings it together in one searchable website. Making this data easily available means it will be easier for people to make decisions and suggestions about government policies based on detailed information. The website classifies data based on domains e.g. health, local government etc., provides applications or Apps for mobile devices and provides datasets. It also provides platform for blogs, wiki, resources etc.

5. Philippines

The Filipino Report Card on Pro-Poor Services assesses the performance of selected government services based on client experience. These services are basic health, elementary education, housing, potable water, and food distribution. The Report Card results throw light on the constraints Filipinos face in accessing public services, their views about the quality and adequacy of services, and the responsiveness of government officials. They provide valuable insights on the priorities and problems faced by the clients and how the various services may be better tailored to the needs of Filipinos in general, and the poor

in particular. (<http://siteresources.worldbank.org/INTPCENG/1143333-1116505690049/20509283/Filipino+Report+Card+on+Pro-chapter7-report-cards.pdf>)

6. Brazil

The city government of Porto Alegre practices “participatory budgeting”. This practice convenes neighbourhood, regional and city wide assemblies in which participants identify spending priorities with around 50,000 residents regularly participate. Since the practice was established a range of improvements in governance, well being and citizen engagements have been achieved, with an increase from 75 to 99% of homes having running water and the number of public schools almost tripling.

(Source: <http://siteresources.worldbank.org/INTEMPowerment/Resources/486312-1095970750368/529763-1095971096030/vergara.pdf>)

7. Australia

The Queensland Government has framed its 2020 vision for Queensland called Toward Q2 around five ambitions (Strong, Smart, Fair, Green and Healthy) that address current and future challenges. Toward Q2 will soon be supported by MyQ2. MyQ2 will use social media to build citizen engagement, which meets the needs of government. In addition to the traditional form of participation in policy development, the government has established a wide range of unique mechanisms and tools at the state and local levels, empowering citizens and communities to be more directly involved in government policies and processes. (<http://www.towardq2.qld.gov.au/tomorrow/index.aspx>)

National Policy on Information Technology, 2012 (NPIT 2012)

PREAMBLE

Information Technology is a key driver of an increasingly knowledge based global economy. A knowledge based economy is now a sine qua non for leadership. Given its current global position in the IT and ITES sector, India is well positioned to enhance and leverage its IT capabilities towards this end. Technology has transformational power. It is a great leveler of opportunity within and across economies. Recognizing this potential of IT, several economies in the Asia-Pacific region have invested in infrastructure and adopted proactive policies to foster adoption of IT pervasively. Consequently their economies have experienced much faster and more equitable growth and their development indices have moved up rapidly.

India aspires to become a knowledge economy with a global role. The Indian economy has achieved a growth rate of around 8 % over the last decade, and the contribution of IT Sector to this growth is significant. The Indian IT industry is a USD 100 Billion industry (2011-12) with 80% of the revenues coming from exports. The Indian IT & ITES sector employs over 2.8 million skilled people. The IT sector has been one of the major employment generators in the last two decades. The global IT-ITES market has been growing. Current negative trends in many economies around the globe provide both challenges and new opportunities. New competitors emerge, often unpredicted. This flux in the global economy highlights the need for constant reappraisal of strategy and the imperative of identifying new markets and new services and seeking ways to leverage and extend the reach of domestic non-IT services like engineering, health, education, skill development, security, legal, financial, accounting, transport & logistics etc. There is room for growth but no room for complacency. A conducive policy environment and a concerted strategy is needed for the country to remain a global player on a long term basis.

While IT export growth is satisfactory despite global recession in the last few years, the impact of IT within the country is uneven. Despite relatively sluggish growth of the domestic market and low levels of ICT usage and penetration in the past, today there are very encouraging signs of accelerating recourse to ICTs in most sectors of the economy and society. There are many drivers propelling this change. Global competition, pressure to cut costs and improve

efficiency, need to address IT-savvy global and domestic markets and compulsion to provide client-centric services to a large number of customers are some of the factors responsible.

However, the bulk of Indian IT exports is still targeted towards North America and Europe. Besides, major IT hubs like Bangalore, Chennai, Hyderabad, Mumbai, Pune and NCR which account for nearly 90% of the total Industry in India are near saturated and face infrastructural challenges and human resource constraints for further expansion. This necessitates the absolute imperative for Indian IT and ITES Industry to diversify into Tier II and Tier III cities. Emerging technologies such as Mobile Technology, Localization, Virtualization, and Cloud Computing provide Indian IT / ITES industry a major opportunity to become partners in value creation and drive transformation domestically.

India today stands at the cusp of development. The Indian workforce is young - with 50% of the population below 25 years. The younger generation is also quick to adopt new technologies. This factor is one of our core competitive strengths. Relying on this advantage, enhanced use of ICT (Information & Communication Technologies) can help usher in sustained growth of the Indian economy.

ICT is known to have transformed businesses and created new products and markets and improved the productivity and efficiency in other sectors. Sectors like Finance, Retail, Courier, Media are just a few examples in this context. For India to retain its competitive edge in sectors in which it is traditionally strong like textiles as also in emerging sectors, it is imperative that ICTs are appropriately adopted. Similarly, the importance of ICTs in strategic sectors like Defence, Atomic Energy, Space etc is paramount.

The National Policy on IT focuses on application of technology-enabled approaches to overcome monumental developmental challenges in education, health, skill development, financial inclusion, employment generation, governance etc. to greatly enhance efficiency across the board in the economy. The policy seeks to achieve the twin goals of bringing the full power of ICT within the reach of the whole of India and harnessing the capability and human resources of the whole of India to enable India to emerge as the Global Hub and Destination for IT and ITES Services by 2020. The focus of the IT policy is therefore on deployment of ICT in all sectors of the economy and on providing IT solutions to the world. The Policy aims at attaining these objectives through coordinated action on the part of both the Central and State governments.

Emerging technology trends will make it possible for millions of citizens to access services electronically in self-service mode using mobile phones and the Internet or through assisted service points such as Common Services Centers etc. This goal is made possible through ubiquitous network connectivity based on mobile technology, broadband Internet, fiber penetration to all villages, high-technology and low-cost affordable devices and software solutions which enable electronic access to services including e-payments.

A unique AADHAAR based electronic authentication framework would be an integral part of systems providing services to the people. Cloud computing will significantly speed up design and roll out of services, enable social networking and participative governance and e-Commerce on a scale which was just not possible with traditional technology solutions.

Adoption of IT by civil society is also increasing by leaps and bounds. Rising use of social media presents a unique opportunity to reach a large percentage of the population in ways that were not possible earlier. Used appropriately, they could substantially enhance the democratic and governance fabric of the country.

In keeping with these trends, Governments at all levels in the country are aggressively adopting e-Governance to improve accessibility, transparency and efficiency. Social Media could also be utilised to facilitate peer-to-peer interaction and thereby promote horizontal communication to foster the growth of a connected society.

There is a strong synergy between IT adoption and the growth of Broadband Infrastructure. Mobile telephony is now well spread out all over the country due to a combination of factors including low cost devices and low tariff. Over 850 million subscribers can benefit from Mobile Internet with a supportive development environment with low cost smartphones/ handheld devices, competitive tariffs and provision of value added services at affordable prices. Policy-driven convergence of ICT based business models and service capabilities with the rapidly evolving Telecom infrastructure has the potential to create an environment which will foster the growth of citizen-services and business models to bring about transformational change in governance and markets.

The National Policy on IT aims to maximally leverage the power of ICT to help address monumental economic and developmental challenges the country faces. It is rooted in the conviction that ICT has the power to transform India and improve the lives of all Indians.

I. VISION

To strengthen and enhance India's position as the Global IT hub and to use IT and cyber space as an engine for rapid, inclusive and substantial growth in the national economy

II. MISSION

1. To consolidate India's position as the global IT & ITES hub and leverage IT to contribute significantly to GDP and employment.
2. To create a sustainable ecosystem for R&D and Innovation to emerge as a global leader in the conception, design and development of new products, services, processes and business models.
3. To leverage ICT for enhanced competitiveness and productivity of key economic and strategic sectors.
4. To provide ubiquitous affordable access to information and public services for enhancing efficiency, transparency, accountability and reliability and leverage use of ICT as a driver for social inclusion
5. To be the leading resource base for IT and ITES talent for domestic and global markets.
6. To ensure a secure cyber space to facilitate trust and enable sustained growth of ICT.
7. To transform India into a Knowledge Society.

III. OBJECTIVES

1. To increase revenues of IT and ITES Industry from 100 Billion USD at present to 300 Billion USD by 2020 and expand exports from 69 Billion USD at present to 200 Billion USD by 2020.
2. To gain significant global market-share in emerging technologies and Services.
3. To promote innovation and R&D in cutting edge technologies and development of applications and solutions in areas like localization, location based services, mobile value added services, Cloud Computing, Social Media and Utility models.
4. To encourage adoption of ICTs in key economic and strategic sectors to improve their competitiveness and productivity.
5. To provide fiscal benefits to SMEs and Startups for adoption of IT in value creation

6. To create a pool of 10 million additional skilled manpower in ICT.
7. To make at least one individual in every household e-literate.
8. To provide for mandatory delivery of and affordable access to all public services in electronic mode.
9. To enhance transparency, accountability, efficiency, reliability and decentralization in Government and in particular, in delivery of public services.
10. To leverage ICT for key Social Sector initiatives like Education, Health, Rural Development and Financial Services to promote equity and quality.
11. To make India global hub for development of language technologies, to encourage and facilitate development of content accessible in all Indian languages and thereby help bridge the digital divide.
12. To enable access of content and ICT applications by differently-abled people to foster inclusive development.
13. To leverage ICT for expanding the workforce and enabling life-long learning.
14. To strengthen the Regulatory and Security Framework for ensuring a Secure and legally compliant Cyberspace ecosystem.
15. To adopt Open standards and promote open source and open technologies

IV. STRATEGIES

1. Creating ecosystem for a globally competitive IT/ITES Industry

- 1.1 To make requisite policy changes to make India a preferred destination to establish and operate IT/ITES enterprises including a stable tax regime and strengthening of the enabling infrastructure.
- 1.2 To formulate Fiscal and other Policies to attract investment in IT Industry in Tier II & Tier III cities and rural areas for expanding the base of IT and for creating employment opportunities across the country.

- 1.3 To promote ICT companies in accessing new markets through bilateral agreements enhancing smooth trade and facilitating mobility for skilled workforce and creating awareness
- 1.4 To formulate policies to provide fiscal benefits to SMEs and Startups in the key industrial sectors for adoption of IT in value creation
- 1.5 To evolve sector specific strategies in areas like engineering, health, education, skill development, security, legal, financial, accounting, etc. with the ministries and representative sector bodies concerned to create/ open up the remote services market in new fields/ services and to enhance value addition in existing services
- 1.6 To evolve new region/ market specific strategies with the ministries and industry bodies concerned in order to enter/expand new markets
- 1.7 To integrate Indian IT products, services and expertise in Indian foreign aid programs

2. Human Resource Development

- 2.1 To create necessary physical and institutional infrastructure for creating a pool of 10 million trained persons in IT sector by the year 2020 through formal and non-formal sectors, with focus on skill development and expertise creation.
- 2.2 To set up Centers of Excellence in institutes of higher learning to promote high-end research in specialized ICT areas and producing quality doctoral and post-doctoral level researchers.
- 2.3 To create a mechanism to ensure that at least one individual in every household is e-literate.
- 2.4 To create a framework to certify the level of applied knowledge and skills of personnel in specific areas of ICT.
- 2.5 To catalyse continuous updation of curriculum and syllabi at all levels to include the current developments and relevant knowledge of ICT as an integral part of the educational programmes.

3. Promotion of Innovation and R&D in IT Sector

- 3.1 To support SMEs and startup companies to equip them for competitive environment through fiscal benefits, innovation fund and incubation facilities.
- 3.2 To create an Innovation Challenge Agenda to promote innovation in ICT sector.
- 3.3 To build R&D infrastructure and test facilities for development and adoption of emerging technologies like: Next Generation Computing Systems, High Performance Computing (HPC), Cloud Computing, GIS, Mobile Technologies,

Inter-operable Infrastructure for Small Financial Transactions, Switch, Language Technologies etc.

- 3.4 To incentivize innovation in public supported research.
- 3.5 To promote industry-academia collaborative R&D with emphasis on innovation, products, patents and IPs
- 3.6 To encourage adoption of ICT based Green technologies as well as to promote green technologies by making them competitive through appropriate fiscal & non-fiscal policies.
- 3.7 To strengthen the ecosystem for creation as well as protection of Intellectual Property

4. Enhancing productivity and competitiveness in key sectors through ICT

- 4.1 To leverage ICT including mobile technology to enable outreach of secure and interoperable financial and banking services in remote areas at affordable cost.
- 4.2 To enable long term partnership with Industry for:
 - i. use of ICT in cutting edge technology and
 - ii. driving development of new ICT technologies through strategic sectors (defence, atomic energy, space etc).
 - iii. facilitate growth of IT SMEs and use of IT across all SMEs
- 4.3 To promote use of IT in key economic sectors such as Construction, Textiles, Pharmaceuticals, Banking, Finance, Retail, Energy, Automobiles, Healthcare, Education, Agriculture, Engineering Services, Transport and Logistics for improved efficiency and productivity.
- 4.4 To promote the availability and use of Public Key Infrastructure, payment gateways and authentication systems leveraging Aadhaar.

5. Creating an ecosystem for Internet and mobile driven Service Industry

- 5.1 To leverage Internet and Web technologies for developing new products, technologies and businesses.
- 5.2 Enable seamless, ubiquitous, secure and personalized delivery of government and non-government services through Internet based and mobile based delivery of services throughout the country.
- 5.3 Foster an ecosystem for innovation in services by leveraging Aadhaar as well as financial and location-based services
- 5.4 To leverage mobile devices as instruments for enabling secure transactional services including financial services.
- 5.5 To promote development of an ecosystem for enabling innovation and entrepreneurship related to mobile Value added Services.

6. Enabling Service Delivery through e-Governance

- 6.1 To implement the National e-Governance Plan (NeGP) and mandate provision of all Government Services through Electronic mode within a fixed time frame by enactment of the Electronic Delivery of Services (EDS) Bill and through re-engineering processes to enhance efficiencies of service delivery.
- 6.2 To mandate public procurement through electronic mode across all departments to enhance transparency and competition.
- 6.3 To set up a widespread network of Common Service Delivery Access points for enabling assisted access to electronic services.
- 6.4 To accelerate and standardize delivery of electronic services by providing Common Shareable Service Delivery Platforms by leveraging technologies like Cloud Computing.
- 6.5 To develop, adopt, evolve and notify standards for seamless interoperability of data and applications.
- 6.6 To promote open standards and open technologies.
- 6.7 To enhance institutional framework for Capacity Building Programme for imparting training across all levels.
- 6.8 To design and create a citizen engagement framework for utilization of social media by the government and its agencies.
- 6.9 To design and implement policy framework for placing data in public domain for use and value addition.
- 6.10 To promote Public Private Partnerships in e-Governance projects and facilitate flow of private sector financial and technical capabilities into the national e-governance effort especially in areas where viable investments are feasible.

7. Development of Language Technologies

- 7.1 To undertake development of language technologies that enable text to speech and speech to text conversion, voice recognition, machine translation, Voice Web, Inter lingua etc to enable language independent delivery of services.
- 7.2 To make India the global hub for language technologies.

8. GIS based IT Services

- 8.1 To develop GIS platform for facilitating location based planning, service delivery, information availability and disaster management
- 8.2 Enabling availability of public spatial data for value addition and innovation.

9. Security of Cyber Space

- 9.1 To undertake policy, promotion and enabling actions for compliance to international security best practices and conformity assessment (product, process, technology & people) and incentives for compliance.
- 9.2 To promote indigenous development of suitable security techniques & technology through frontier technology research, solution oriented research, proof of concept, pilot development etc. and deployment of secure IT products/processes
- 9.3 To create a culture of cyber security for responsible user behavior & actions including building capacities and awareness campaigns.
- 9.4 To create, establish and operate an Information Security Assurance Framework.ø