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17 May 2019

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e governance Professional
World Bank Group- Consultant

Change
starts
in your
thoughts.

Transform

Essential questions

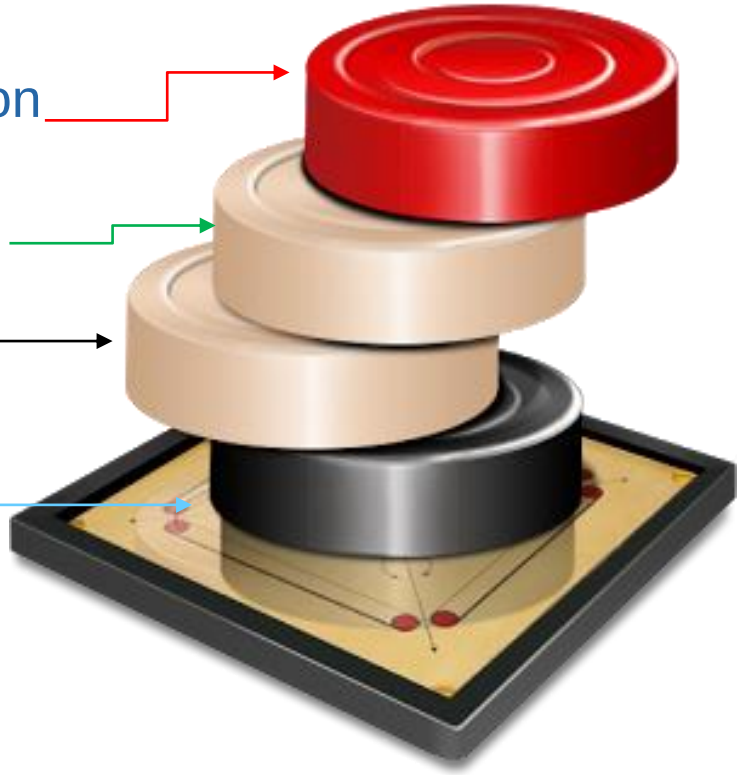
Why do we transform?

What do we transform?

How do we transform?

Are we ready for the transformation ?

- Transformation Plan- a Framework to work on
- Is the Infrastructure ready for transformation
- Organizational readiness
- Readiness factors



Department of Electronics and Information Technology, Government of India

Digital India-Programme to prepare India for a knowledge future

Pillar 4. e-Governance: Reforming Government through Technology

Launched on 02 Jul 2015
To connect Rural India with High speed internet and to improve digital Literacy

Key concept for India inc.

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In Line

On Line

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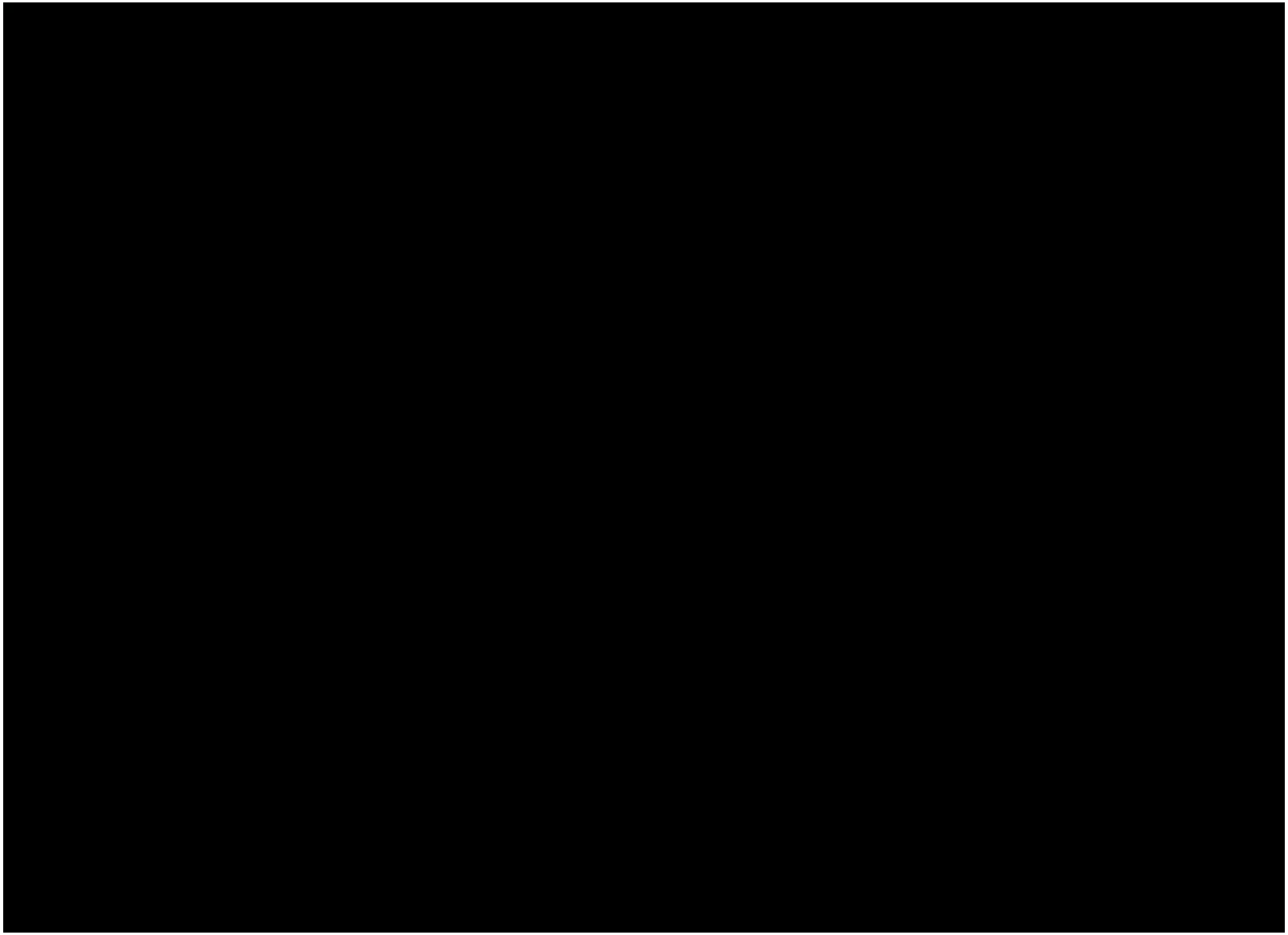

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Problem Statement

The Problem is that
we are governing in the 21st century
with Processes and Organizations
designed in the 19th Century
to work well in the 20th Century!

We need entirely different
PROCESSES & ORGANIZATIONS
for Governance in the 21st Century

Slide Courtesy : J Satyanarayana, on BPR

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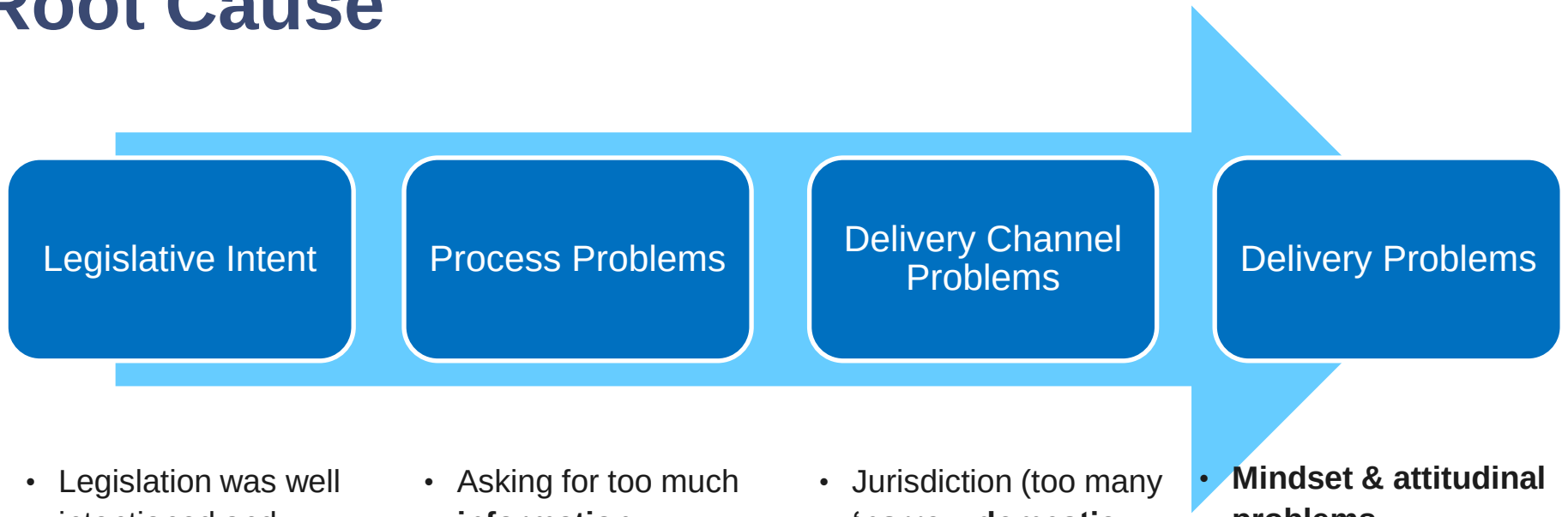
Root Cause



- Legislation was well intentioned and relevant **at the time it was drafted**
- **Focused more on control and ensuring compliance,** rather than service delivery
- **Rules added** along the way, making the legal framework **complex and tedious**

- Asking for too much **information**
- **Burden of proof thrown on Citizen**
- **Complexity of rules & regulations (**Anything to do with money is more complex!)
- Heavy **reliance** on **manual systems**
- **No concept of Quality** Assurance

- Jurisdiction (too many **'narrow domestic walls!')**
- **Restricted timings**
- Disparate **and sub-optimal delivery** networks
- **No choice of delivery channels**
- Process & Delivery Channel often combined **resulting in delay, malpractice**

- **Mindset & attitudinal problems**
- Delivery Agents unsuitable
- Lack of empowerment of front-end people
- Lack of dedicated delivery teams
- Delivery is handled on a part-time basis
- **Lack of service levels, measurement systems**

Our country -Today

- Islands of work noticed
- NeGP 1.0 Approved in 2006
- e Kranti- NeGP 2.0- 2015
- Awareness and Understanding not complete
- IT Act 2000/ 2008
- Number of projects in India
- Number of players- SI's and Consultants
- Capacity Building programmes
- Reinvention of wheel
- Tight RFP's
- Scope creep

Joined Up Services

- Transformation of governance
- Mind boggling exercise
- Join up vertically, Horizontally and Functionally.
  - Technology; legislation; process; standard formats
  - Joined up at Front end; joined up at middle level and joined up at back end.

New Paradigm shift

- Enterprise Architecture- e Pragati
  - 35 Depts,315 agencies,745 services
  - 4 waves, 14 packages, 72 projects
- Modular way of doing things

Important Question

- "Why do we do what we do?
- Why do we do it the way we do? "

Solution lies in

- Organization Culture, Governance Hierarchy, Process Reengineering and Change Management

Government Processes – Unique Attributes

- Processes are usually derived from the *underlying set of laws and regulations*
- *Compliance and control* requirements are higher than in business processes, due to increased levels of accountability and need for transparency
- Changing processes radically might take longer timeframe than in business processes, as it may *require legal & regulatory changes*

Defining Business Process Reengineering (BPR)

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- *BPR is fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service and speed*

Michael Hammer and James Champy

- 'Changing'/'redesigning'/'replacing'/'eliminating' the activities and/or sub-processes and/or processes related to a **service** to improve **service quality** i.e.
  - Minimize Time, Cost, Complexity
  - Improve Transparency, Convenience and Experience
- GPR may address all or some of the service quality attributes
- Government Process Re-engineering (GPR) has evolved from applying Business Process Re-engineering (BPR) concepts to Government Services

Need for GPR in e-Governance

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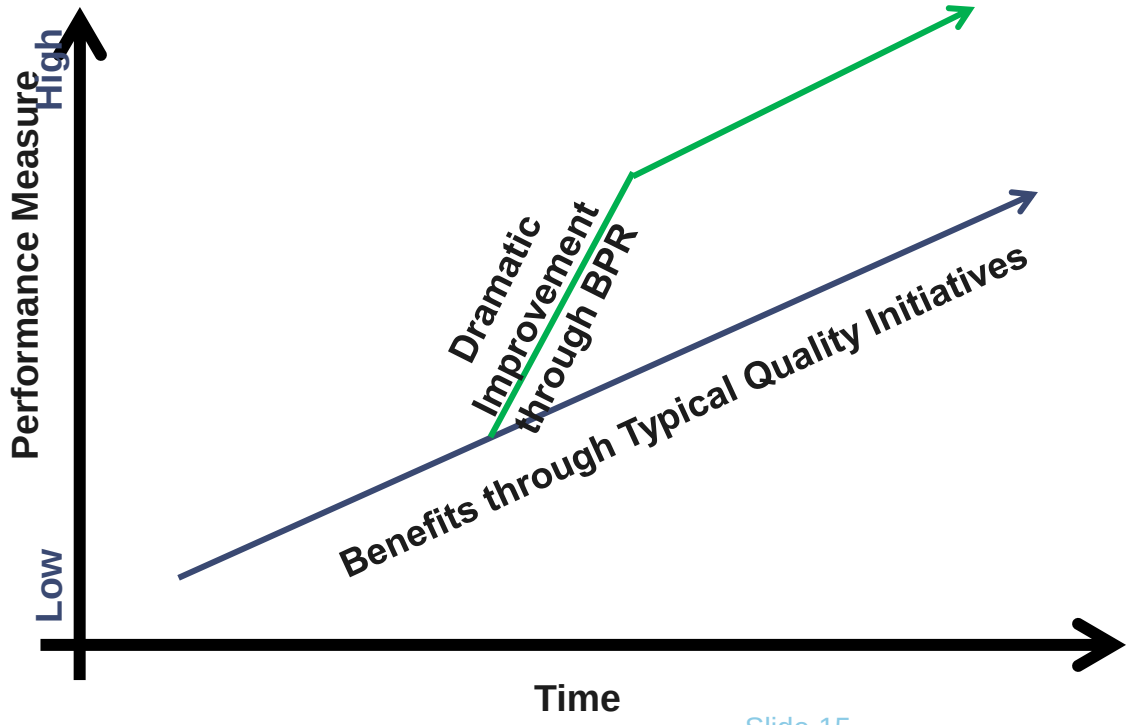
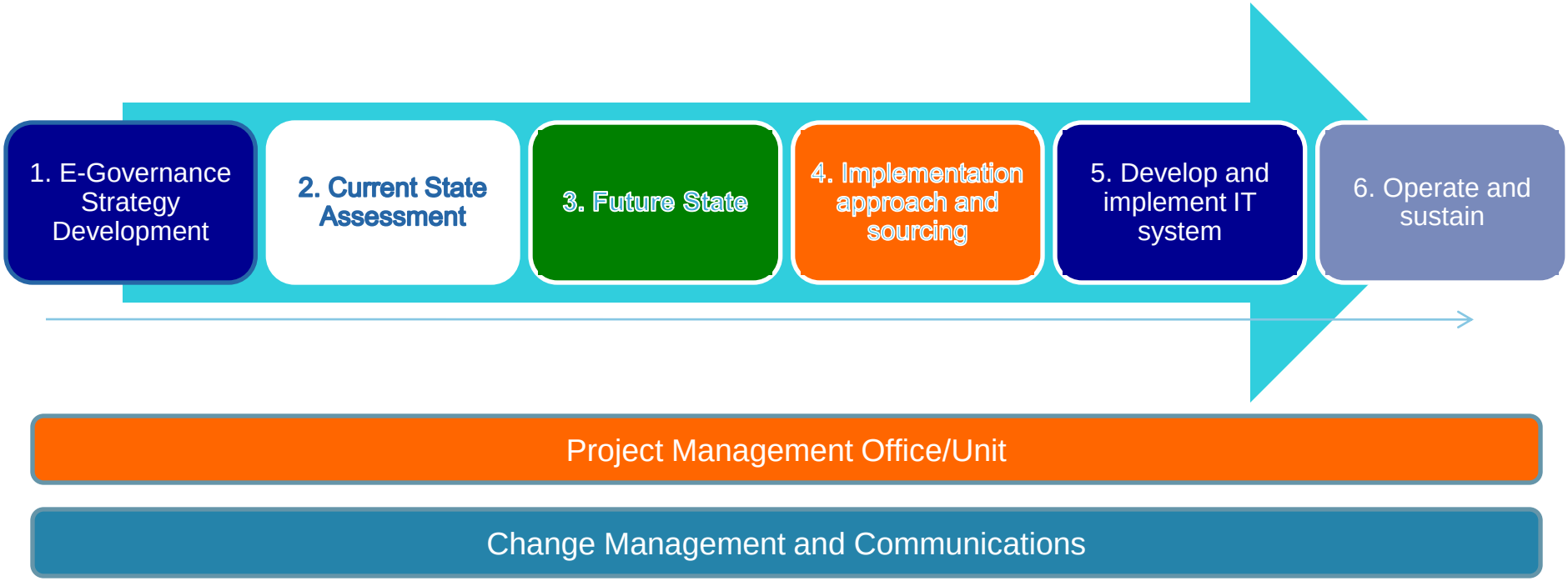
- IT enablement (without) GPR provides results to the stakeholders, but may not address all the attributes of service quality
- In particular, IT enablement of an inefficient business process can only lead to ‘inefficient IT enabled process’ – delivering the same results with marginal improvement
- GPR may support organizations in dramatic improvement of performance and application of IT on reengineered processes will yield better results for stakeholders



e-Governance Project Lifecycle (eGLC)



e-Governance Project Lifecycle (eGLC)

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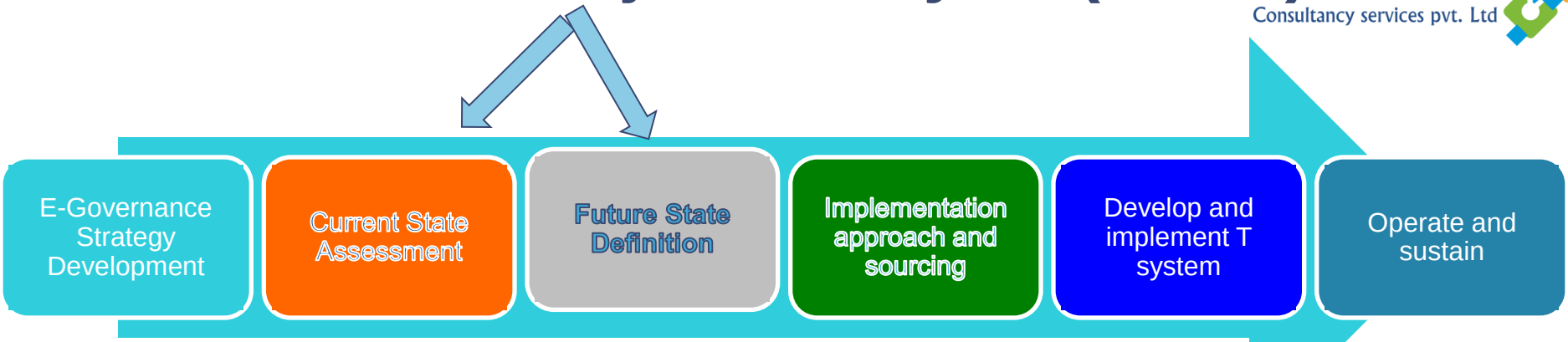

- Needs Assessment
- Define clear vision & objectives
- Prioritization of services and projects
- Incorporate domestic and global learnings
- Identify institutional structures & capacities for implementation
- Define funding requirements
- Define monitoring and evaluation approach…

- Critical assessment of current business processes and pain areas
- Best practices in similar environments
- Assess legal framework and current limitations
- Assess current ICT systems and their ability to support future plans
- Assessment of current capacities at all levels and their preparedness for e-governance..

- Process reengineering & to –be process definition
- Identity IT enablement opportunities & requirements
- Define changes to legal & regulatory environment
- Develop People change and capacity building plan
- Develop project awareness and communication requirements…

- Define implementation approach and phasing plan (functional and geographic)
- Assess detailed funding requirements and business model
- Develop vendor evaluation and selection criteria
- Develop KPIs and performance levels for services and systems
- Develop RFP
- Bid evaluation and vendor selection

- Definition of detailed functional and technical requirements
- System design and development
- Software quality assurance, acceptance testing and auditing
- Training and capacity building
- Change management and project communications
- Project documentation
- Project go-live

- System operations and maintenance
- Software change management
- Rollout services and systems (functionality and geography)
- Objectives and benefits evaluation and reinforcement
- Sustained change, capacity building and communications..

Approach to GPR

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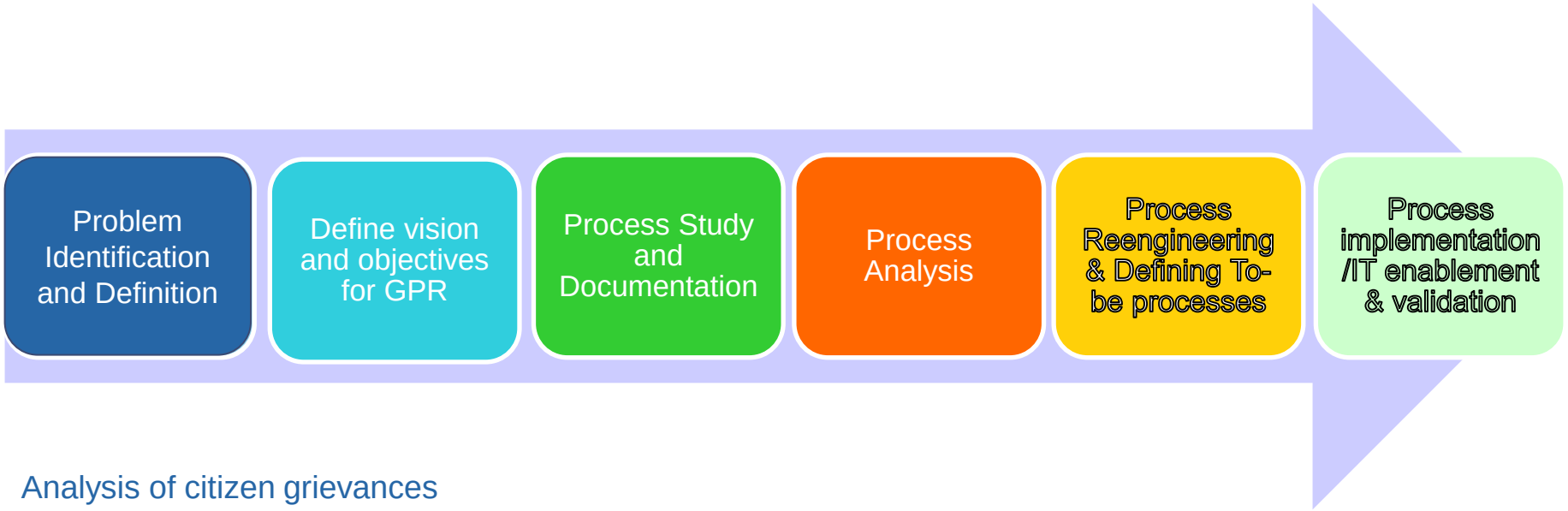
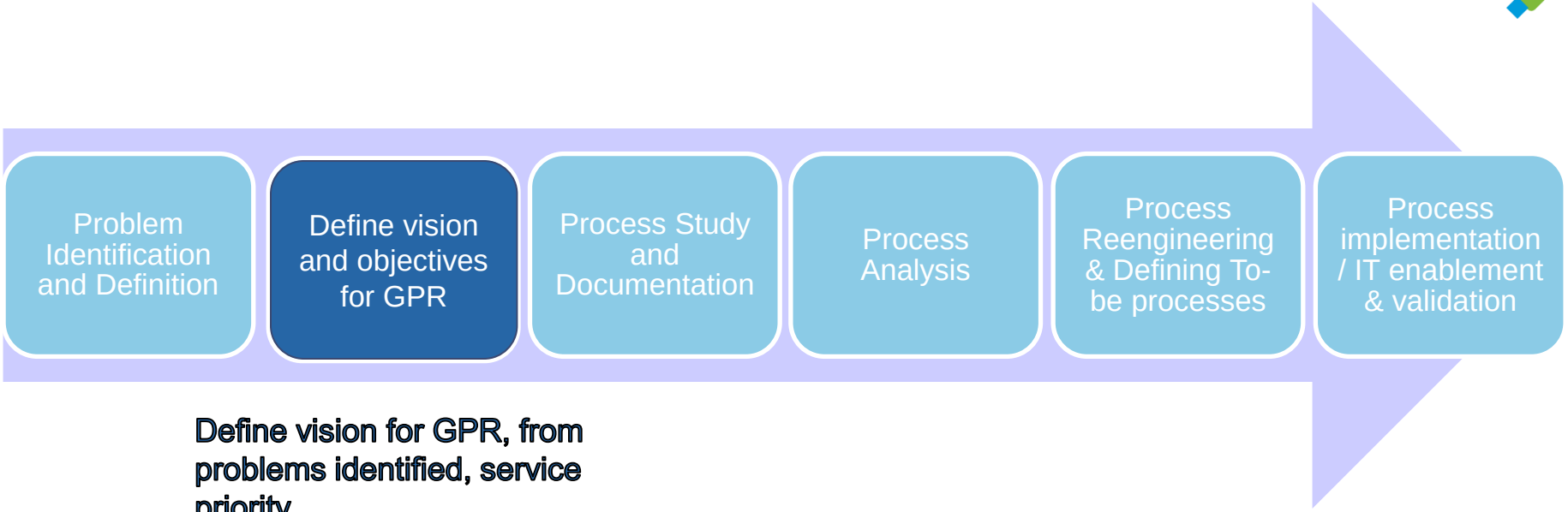


Analysis of citizen grievances & complaints and pro-active Voice of Customer surveys

Analysis of issues raised

Identification of problem and defining unambiguous problem statements

Approach to GPR

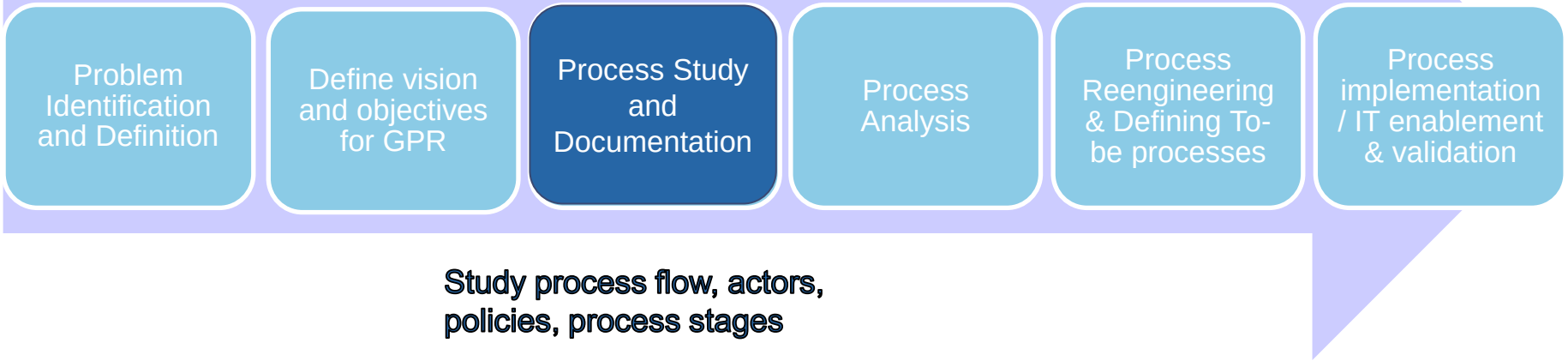


Define vision for GPR, from problems identified, service priority

Analyse services portfolio and undertake service prioritisation exercise

Define measurable objectives for the GPR exercise

Approach to GPR



Study process flow, actors, policies, process stages

Documenting as-is processes and creating Process Maps

Recording time and other data elements for each process step

Validation of process documentation from dept.

Identify and classify PIEs for the processes

Process re-engineering is a necessity

Registration of land
Provision of certificates
Mutation of titles
Knowing your farmers and providing subsidies
Carrying out health programmes
Tourism
Revenue
Urban and Rural Municipal Administration

Examples of e Gov projects

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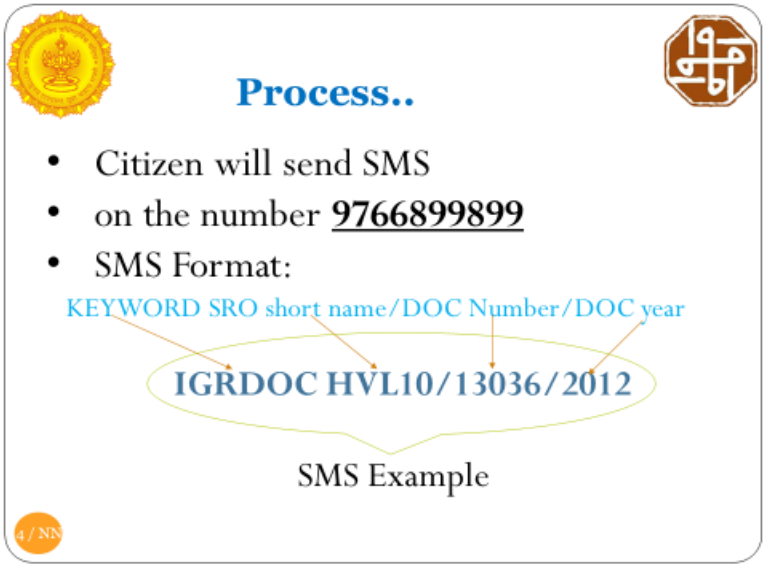
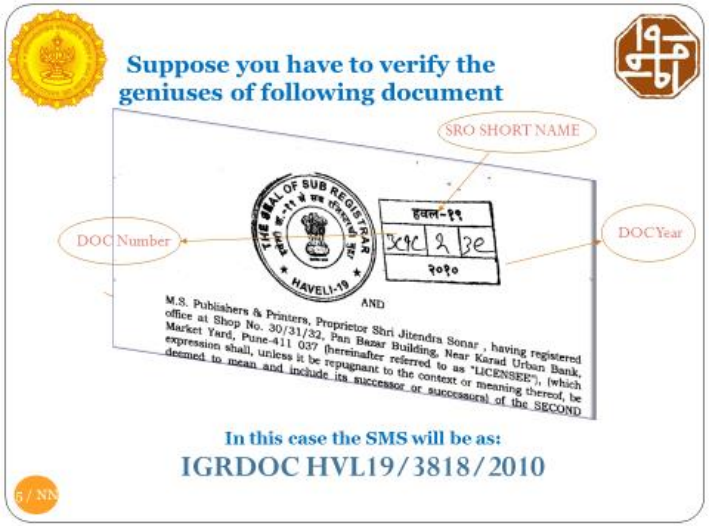
- I Sarita- Improvements (IGR,GOM)
  - Online payment of stamp duty and registration fees,
  - Online valuation of property, transactional history of property, online appointment, verification of document through SMS





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Examples of e Gov projects

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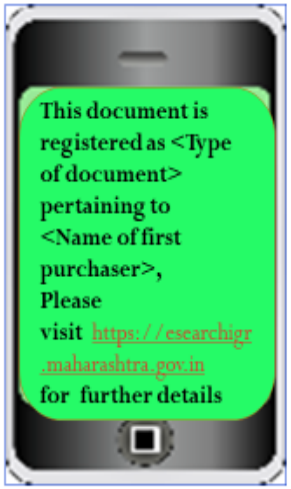
Reply to the SMS from Server

If sent message is in correct format and document details exists then



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For which period?

3 phases :

1985 to 2001	Manual Registration
2002 to 2012	Computerized but stand alone
July 2012 onwards	Computerized, Central server based

- At present the Service of verification is available for the documents registered in the third phase i.e. **July 2012 onwards,**
- **It will be made available for the** for the documents registered in the Second phase i.e. **2002 to 2012, in a month.**

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Examples of e Gov projects

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e Pass- Re-engineering + Improvements (Dept of Social Welfare, GOAP)

- A comprehensive e-Governance Project
  - Transforms the paradigm of scholarship administration
  - Envisages changed roles of departments
  - G2C; G2B; G2G
- Integrates complex operations of different departments: Welfare, Education, Treasury & Banks

❑Assistance given to all communities to pursue post Intermediate courses

- ❑Scheduled Caste – Social Welfare Department
- ❑Scheduled Tribe – Tribal Welfare Department
- ❑ Backward Class – BC Welfare Department
- ❑ Disabled groups – Women & Child Welfare Department
- ❑Economically Backward Classes: BC Welfare Department
- ❑Minorities – Minority Welfare Department

❑Large volume disbursement – 26.00 Lakh Students; Rs. 3,700 Crores/year

❑Social Welfare Department is the Nodal Agency

Examples of e Gov projects

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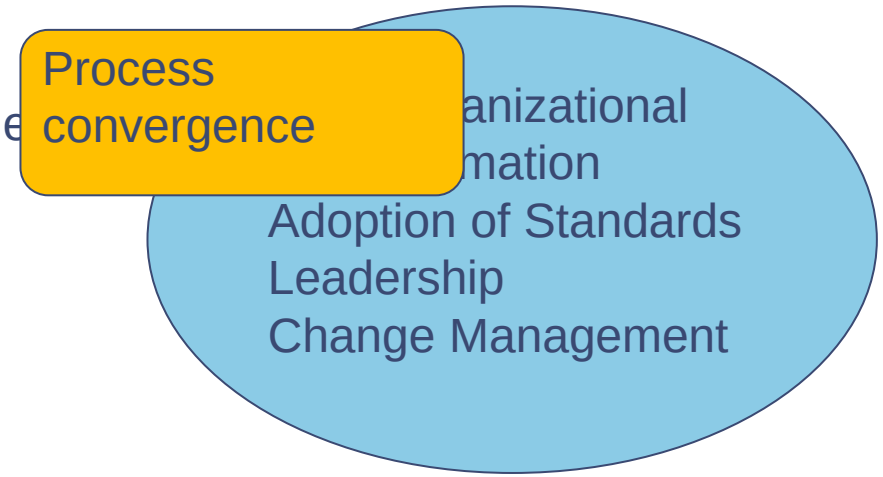
e BRC (Part of eTrade)

One of the main compliances required from exporters in implementing the Foreign Trade Policy and its various Export Promotion schemes, is to realize foreign exchange against the exports made as per the stipulated guidelines and time frame of the Reserve Bank of India (RBI).

The major stake holders of this project are:
Foreign Trade Regulatory/Facilitating Agencie
of Foreign Trade (DGFT)
Seaports, Airports
Container Corporation of India (CONCOR)
Inland container Depots (ICDs)
Container Freight Stations (CFSs)
Banks
Importers/Exporters
Custom House Agents (CHA's)
Airlines/Shipping lines
Directorate General of Commercial Intelligence and Statistics (DGCIS).



Process Redesign Example
Integrated Land Information System in AP

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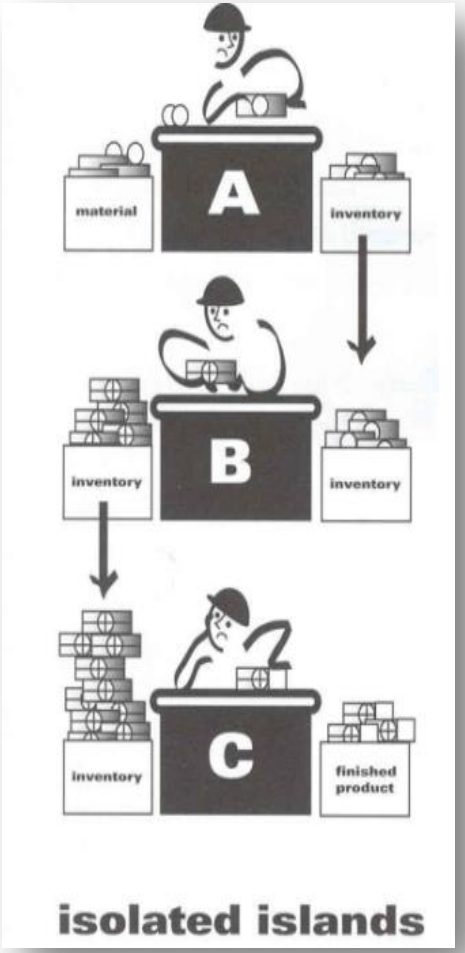
- In erstwhile Andhra Pradesh (as in most other states), the maintenance of records/information relating to land and property ownership is done under the auspices of four different departments:
  - **Survey and Land Records Department**, which conducts cadastral surveys and creates and maintains basic records for each village
  - **The Revenue Department** which administers Land Records by way of updating of titles
  - **The Registration Department**, which undertakes registration of deeds pertaining to transactions of land involving sale, purchase, gift etc
  - **The Urban and Rural Local Bodies,** which maintain ownership information necessary to collect property taxes, and undertake planning and developmental activities within Panchayat and municipal towns.
- This situation led to a lot of hardships to citizens planning to get their property transactions legalized…

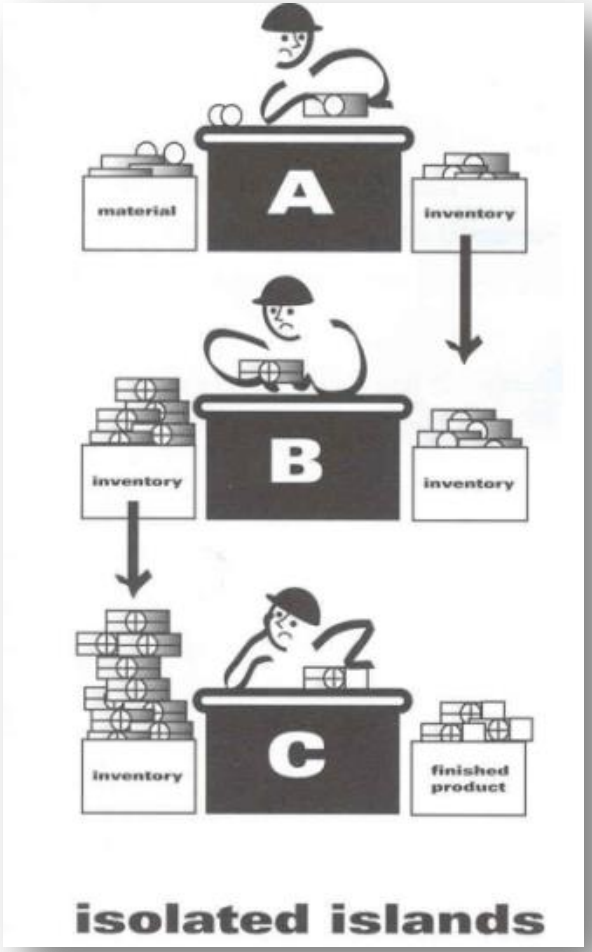
A case of non-continuous flow…

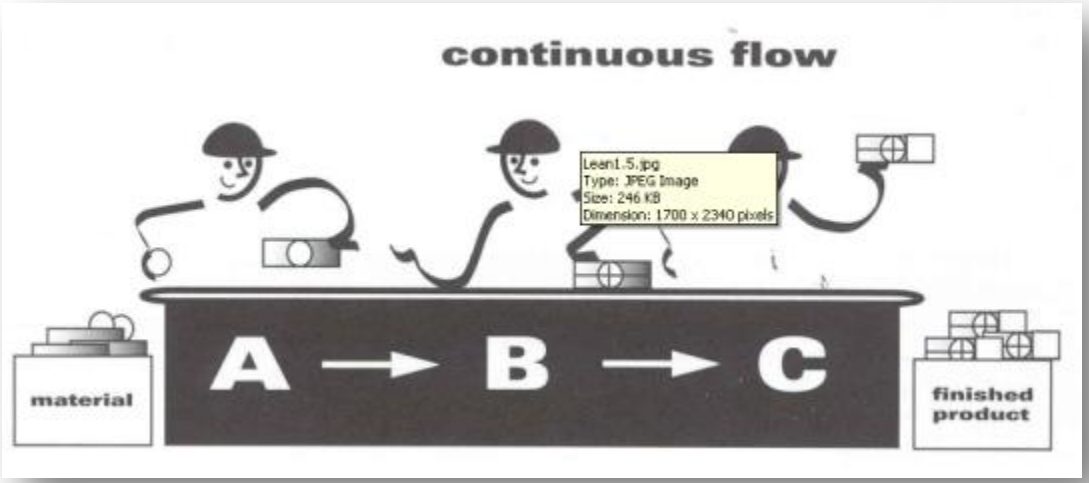
- The complete process of property transaction involved visits to different departments…
  - Buyer obtains encumbrance certificate from Registration department to check previous transactions on property
  - Registration of property deed at the Registration department and obtaining proof of transaction
  - Changing of ownership at Land Title Office after buyer produces proof of transaction
  - Sub-division and boundary information recording by Land Surveyor

- In many cases, one or more steps are not completed resulting in records being out of sync

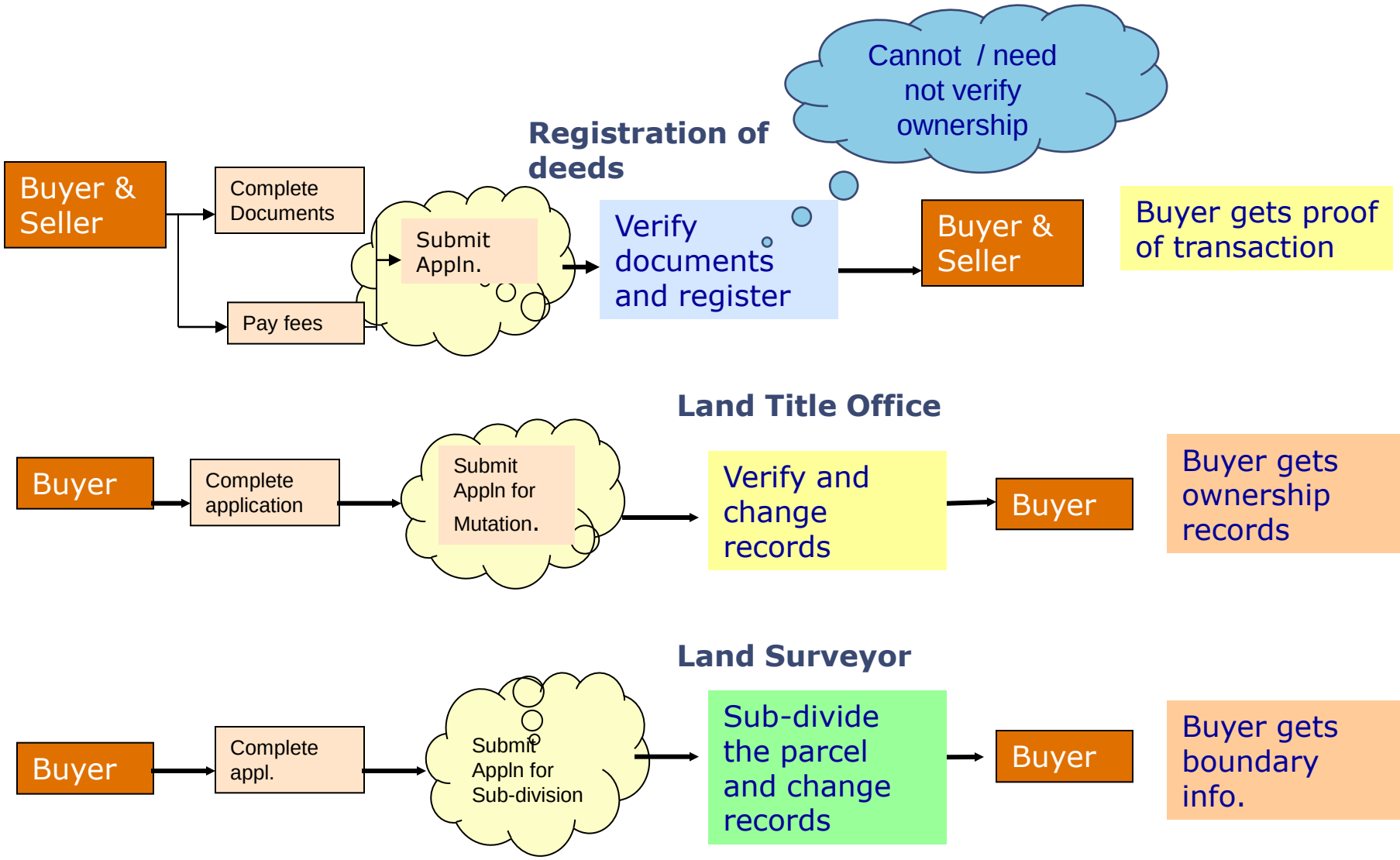


Completing a process in a continuous flow helps reduce turnaround time significantly





Existing System – Land Transactions



Issues with the current process

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- A large number of survey records (field maps) were missing and many were in poor condition rendering them unusable
- Delays in updating of survey and ownership records, leading to records not in synchronization with the correct picture on ground
- Resurveys not conducted for long periods (more than 40 years) rendering survey records obsolete
- Registration process does not have legal obligation to check ownership resulting in fraud transactions
- Property valuation process not scientific
- Revenue department records relate only to agricultural land. Property tax registers used as proof of ownership in urban areas
- Change of records in one entity not necessarily reflected in the other entities, resulting lack of a holistic view

Process Re-design objectives

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- To provide a single source of truth for land records which is secure & enjoys public confidence
- Deliver all land related services through a dedicated agency which will also maintain the land records system
- Maintain all records in integrated digital form in a central repository
- Maintain and disseminate authentic and real-time land related information to assist in developmental planning, welfare activities and levy of land related taxation
- Implement systems & processes for maintenance & auto-updating of data
- Have a self sustaining operating model
- Provide services in a cost effective manner with easy accessibility
- Provide services to the customers through a unified interface, which requires only a single visit by the citizen
- Provide a transparent property valuation system that will help in better property assessment

Creating a single source of truth for land records...

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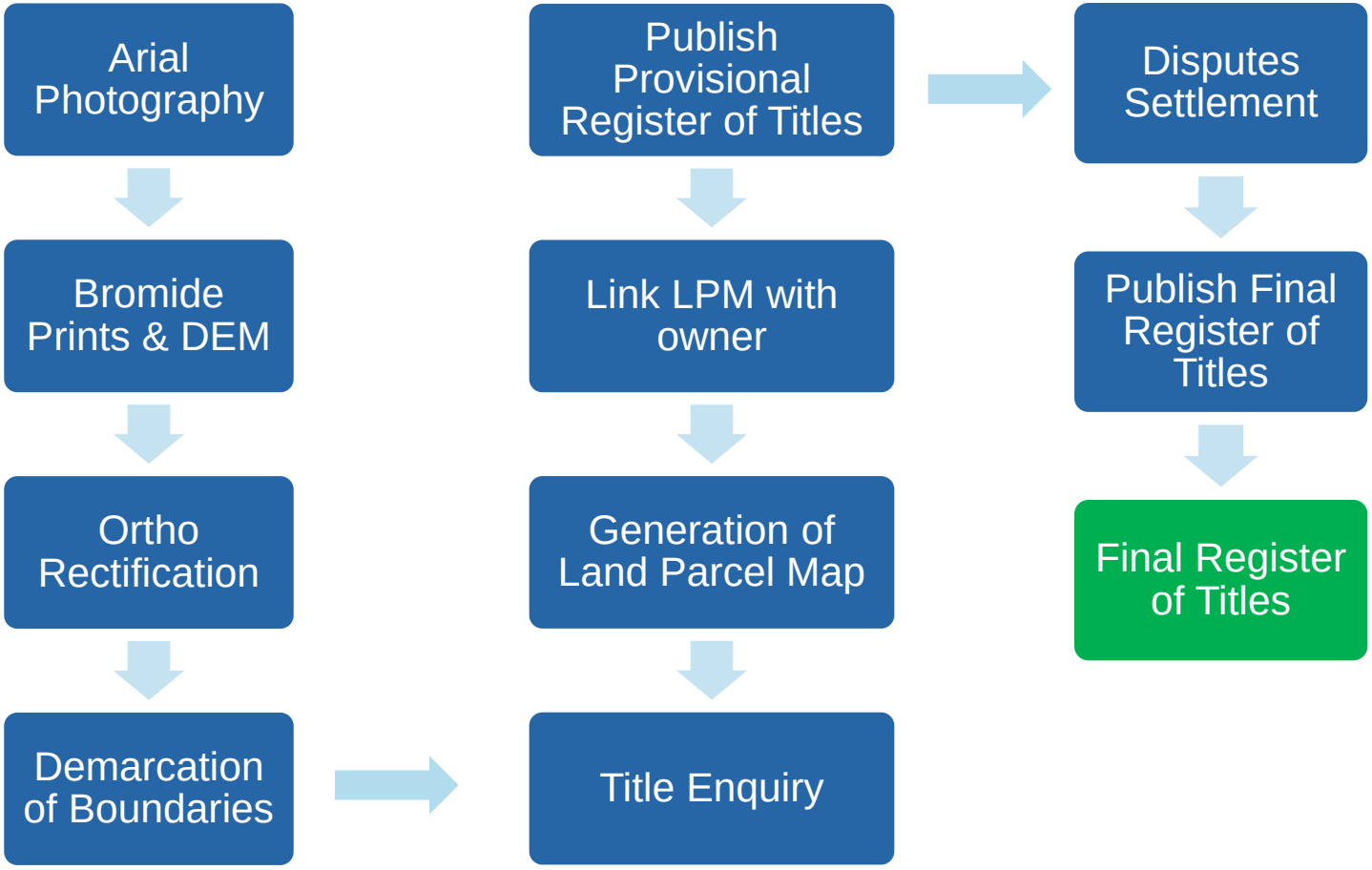
Creating a single source of truth for all land related information (ownership, extent etc) is the first step in providing integrated service delivery…



ILIS – Re-engineered Scenario

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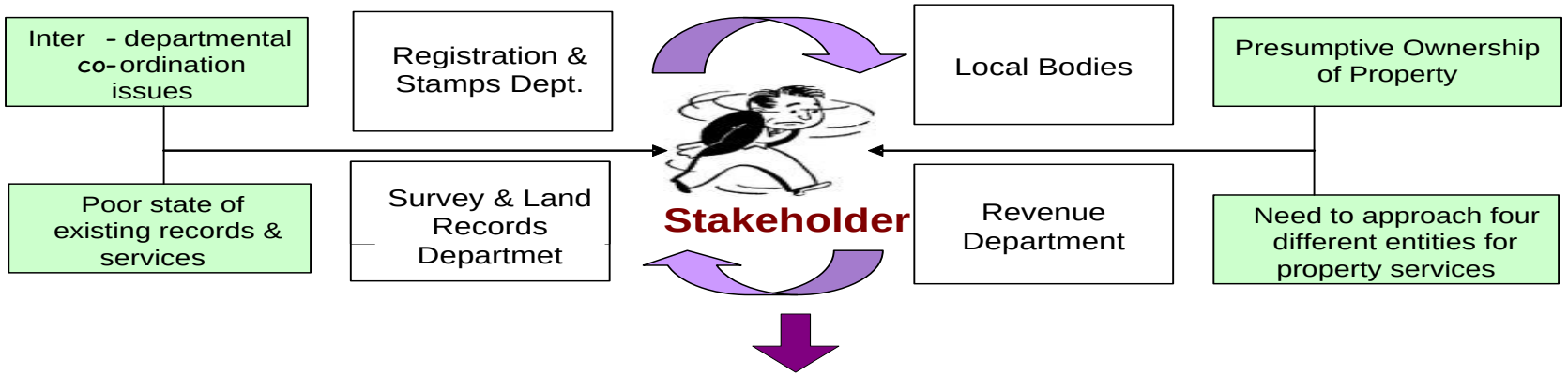
Current Situation



TRANSFORMATION

Integrated Land Information System (ILIS)

Stakeholders

- Citizen
- Business
- Govt.

Services

- Conveyance
- Sub-division
- Information Search
  - Ownership
  - Land use
  - Graphical
- Market Valuation
- Value Added Services

Delivery Channels

- Web Based
- ILIS Office
- Service Provider

- Ownership Info
- Graphical record
- Land Use Info
- Geodetic Network
- Other Info Layers

Integrated Land Information Repository

Re-designed process for ILIS

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- Single visit by buyer and seller to the agency dedicated for property transactions
- Conclusive and unambiguous ownership
- Real time update of all information related to the transaction in the system
- Provision of information services as self service to citizens:
  - Encumbrance search
  - Property value calculation from guidance rates
- Better realization of taxes by government agencies, Urban Local Bodies
- The process which took days previously, is completed in a single day…

This is a perfect example for use of technology in process re-design (Arial photography, GPS based surveys, single shared database..)

e Krishi-Govt. of Goa -Challenges

- Unsure data of farmers and land holding
- Paper work, physical records, time delay.
- Too many verification/ inspection layer's - workload on officers.
- Field staff engaged in office work on behalf of farmers.
- Stress amongst staff due to farmer complaints about delay & lack of information.
- Duplication of Records
- Delay in release of subsidies ie 90-150 days

Source: Dept. of Agriculture, State of Goa

Solution to overcome the challenges

- Launch of 1st phase of e-Krishi application in May 2013
- One time registration of farmers of Goa and providing them with a smart card viz KRISHI CARD
- Re-engineer the internal processes of the department to make them leaner, simpler, and standardised all the process across schemes.

Source: Dept. of Agriculture, State of Goa

Krishi Card Extract

Directorate of Agriculture,Goa
Krishi Card Abstract

FARMER DETAILS

Name	: Mohandas Vaman Desai	Application	07-Aug-2013
Registration No	: PON00224	Ack No	PON13REG00123
Application No	: APPPON130807-151	Farmer Type	AGRI
Address	: 136/1,SHIRSHIREM,403401	AC	Shiroda
		Taluka	Ponda
		Age	48
District	: North Goa	Marital Status	MARRIED
Date of Birth	: 02-10-1964 00:00:00	Religion	HINDU
Gender	: MALE	Category	Gen

CONTACT DETAILS

Mobile	: 7798624913	Landline No.	: -
Email ID	: -	Alt Mobile No	: 7798624914

IDENTITY DETAILS

PAN No	: -	EPIC No	: HFF4234092	Aadhar No :	208462269066
Kissan Credit No :	-	Ration Card No.	: PON/55/426/BOR	Aadhar Enrolment No	-

BANK DETAILS

Bank Name	: THE GOA URBAN CO-OPERATIVE BANK	Branch Name	: PONDA
Account No	: 20087		
IFSC/MICR code	: HDFC0CGUB09/403416009	ECS code(if any)	: T0054853

FAMILY DETAILS

Father Name	: Vaman Anant Desai	Mother Name	: Mohini Vaman Desai

NOMINEE DETAILS

Bank Name	: BANK OF MAHARASHTRA	Branch Name:	PONDA, GOA	Account No	: 60122476348
Nominee Name	: Prathamesh M Desai				
ECS code(if any)	: -	Relation with Farmer :	SON	IFSC/MICR code :	MAHB0001163/403014012

LAND DETAILS

Taluka	Vill/Town	Sur No	Sub No	Total area	Cult area	farmer area	ownership type	land owned type	land cod	CropDetails
Ponda	Borim	64	2	13,575	13,475	13,475	SOLO	Inherited	2A	Arecanut-5000:Banana-500
Ponda	Borim	48	0	20,050	0	20,050	SOLO	Inherited	2A	Cashew-7500:Coconut-2800

Source: Dept. of Agriculture, State of Goa

Parivartan-Process Re-engineering

- The department officials understood first hand the necessity of GPR.
- All the processes were comprehensively studied
- Created As-Is Maps and vetted by GPR Consultant and re-designed the To-Be processes by eliminating the bottlenecks
    - Eliminated every time requirement of the 25- pages documents from farmer.
    - The cost of delivery of service has also reduced by 1/ 3 rd
    - The applicant file was physically scrutinized at 12 levels with 60 touch points with a average of TAT of 60-120 days. This was re-engineered and now there are 8 touch points and the number of days reduced to 35 days.

Source: Dept. of Agriculture, State of Goa

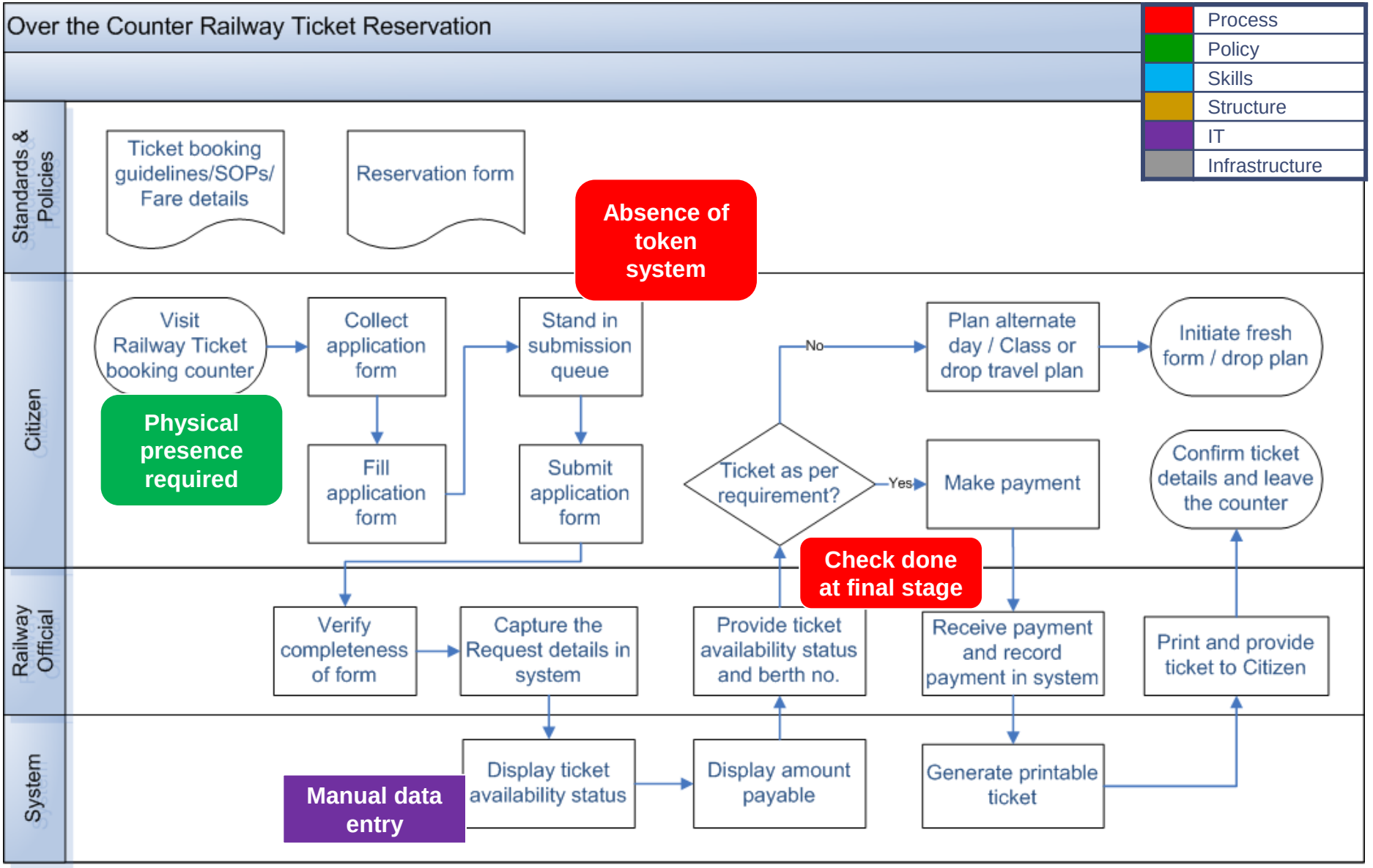
Process Re-engineering

- Unique land coding system developed to overcome the land ownership issues

Sr No	Ownership type	Land Owned Category Type	Code
1	SelfOwned	Applicants Name in Owners column in Form I & XIV	1A
2	SelfOwned	Sale Deed/gift deed mentioning name of applicant as purchaser and area and ownership	1B
3	SelfOwned	Power of Attorney mentioning name of applicant	1C
4	SelfOwned	ownership via court proceedings	1D
5	Inherited	Legal heir of occupant on Form I & XIV	2A
6	Inherited	Succession Deed or Search report or inventory proceedings	2B
7	Inherited	Via Sale Deed or Inventory or Will /Registered Gift or relinquishment deed.	2C
8	Inherited	Power of Attorney or 'No Objection' to legal Heir	2D
9	Inherited	Tenancy via court proceedings	2E
10	Lease	Name reflecting on I & XIV as leasee rights or copy of Alwara/ Afframent(Award) in case of Government land	3A
11	Lease	Valid Lease Agreement	3B
12	Lease	Inheritor of Lease	3C
13	Lease	claiming lease title via court proceedings	3D
14	Lease	Contract farming	3E
15	Tenant	Applicants Name in Tenant column in Form I & XIV	4A
16	Tenant	Sanad/award declaring Applicant as Tenant	4B
17	Tenant	Via 'No Objection' only to legal heir	4C
18	Tenant	Inheritor of Tenant via affidavit	4D
19	Tenant	claiming tenancy via court proceedings	4E
20	Caretaker	Name as Caretaker in Form I & XIV or his legal heir	5A
21	Caretaker	Applicant is the legal heir of the occupant whose name is reflecting as caretaker	5B
22	Caretaker	Cultivating farmer (verbal agreement)	5C
23	Caretaker	Applicants name reflecting as Cultivator/ Occupant or any other name in Other Rights of I & XIV	5D
24	Caretaker	Applicants name reflecting on Form III	5E
25	Caretaker	Evacuee property	5F

Source: Dept. of Agriculture, State of Goa

Sample Process Map with Problems, Issues & Expectations



Cause & effect diagram for “CSK’s defeat in IPL-6 final cricket match”

Identify all possible causes….

- Planning
- Sleep
- Study of opponent
- Judgment of situation
- Composure
- Meal
- Carefulness
- Form
- Team work
- Fighting spirit
- Motion
- Rest
- Exercise

Affinitize causes into categories…

- Rest
- Sleep
- Meal

Health

- Planning
- Study of opponent
- Judgment of situation

Strategy

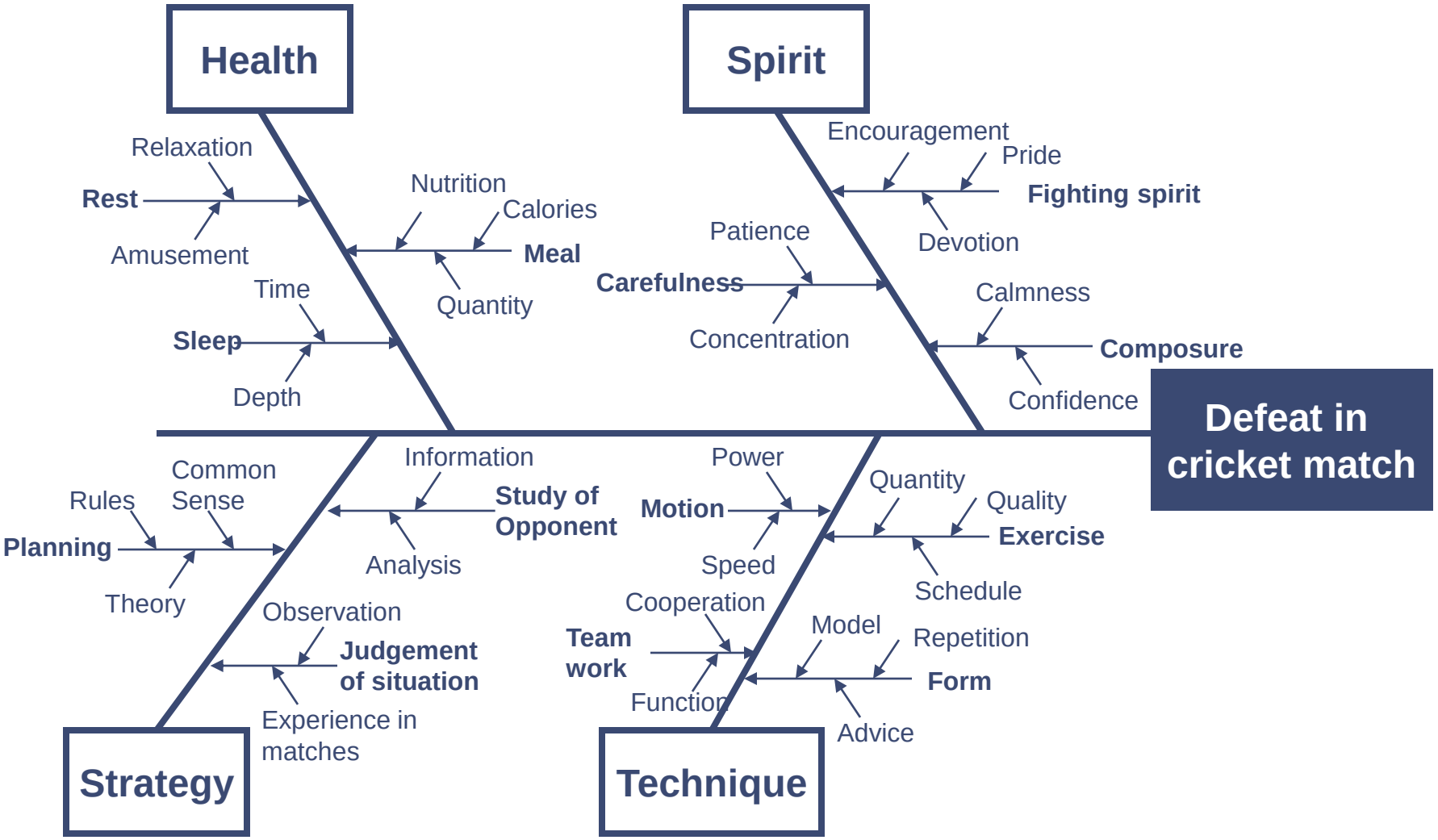
- Carefulness
- Composure
- Fighting spirit

Spirit

- Team work
- Motion
- Exercise
- Form

Technique

Cause & Effect diagram for “Indian cricket team’s defeat”



Brainstorming tool – 5 Whys approach

- The 5 Whys is a question-asking method used to explore the cause / effect relationships underlying a particular problem
- Used to come up with the root causes for the problem at hand
- Continue asking Why till you get to a root cause (need not necessarily be at the 5th Why…)
- Continue with the 5 whys process till all the possible root causes are covered

5 Whys approach – Example 1

- The following example demonstrates the basic process of 5 Whys:
- My car will not start. (the effect)
  - *Why? - The battery is dead. (first why)*
  - *Why? - The alternator is not functioning. (second why)*
  - *Why? - The alternator belt has broken. (third why)*
  - *Why? - The alternator belt was well beyond its useful service life and has never been replaced. (fourth why)*
  - *Why? - I have not been maintaining my car according to the recommended service schedule. (fifth why, a root cause)*
  - *Why? - Replacement parts are not available because of the extreme age of my vehicle.(sixth why, optional footnote)*

Why do we need to do Process Analysis?

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- Process analysis helps us identify opportunities and areas for improvement

- What constitutes process analysis?
  - Measuring process efficiency – VA/ NVA activities
  - Identifying process complexity – Data Entry Points (DEPs) / Hand off Points (HOPs) etc.
  - Hands On Time (HOT) vs. Turn Around Time (TAT) analysis

Classifying process activities in VA/ NVA

- An activity that provides the process with no competitive advantage and which can be discarded without influencing the final outcome
  - It includes any of the following activities – rework, multiple signatures, counting, handling, checking, inspecting, transporting, down-time, delaying, storing

Transport / Handling	T	Moving people, information and/or things from one location to **another**
Redundancy / Duplication	R	Rework; unnecessary or duplicate performance of a task
Inspect ion / Verification	I	Ensuring a task was performed correctly / Checking / Reviewing
Preparation	P	Getting ready to perform a task / Prepare to do work

- e.g.: Standing in queue to submit an application form

Estimating the Value Added Ratio

- Customer-Value Added (CVA)
  - An activity required to provide what the customer is paying for.
- Business-Value Added (BVA)
  - An activity required by the business to serve the customer.
- Value Added ratio (VAR) = Sum of Active Time Spent on Value Added Activities / Total Elapsed Time * 100
  - Example:
    - Sum of Active Time Spent on Value Added Activities = 1.5 hours
    - Total Elapsed Time = 2 days = 48 hours
    - VAR = (1.5 hours / 48 hours) x 100 = 3.1%

Process complexity analysis

- Facilitates identification of those elements in the process that can be eliminated
- Process Complexity Analysis documents the following:
  - Number of data entry points (DEP)
  - Number of hand-off points (HOP)
  - Number of systems used

- More number of DEPs, HOPs and systems indicate a complex process

HOT & TAT

- HANDS ON TIME (HOT)
  - The time during which material or information is actually handled or action is taken on them in a process for changing its shape or form
- Turn around time (TAT)
  - The total time taken for material or information to move across in a process from the start point to the end point

- TAT = HOT+ Queue time + Changeover time(if any) + transportation time

- Time other than HOT can be focused upon for improvement

Metrics are key indicators to the quality of the process output

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Category	Metrics definition
Business metrics	• No of passports issued • Growth in passport issuance
Effectiveness metrics	• TAT for passport issuance • Number and type of citizen grievances
Efficiency metrics	• Percentage of passports issued with errors • Real time tracking of forms

Redesigning existing processes

- The main objective of redesign is to improve performance measures – CTPs and CTQs identified during the process mapping phase
- Redesign can be carried out by looking at the following items identified during process analysis:
  - Redundancies
  - Duplications
  - Inefficiencies
  - Bottlenecks
  - Unnecessary activities
  - Non value-adding activities
- Redesign should take into account legal issues, IT / Technology opportunities and organizational constraints of the process

Some principles of process re-design

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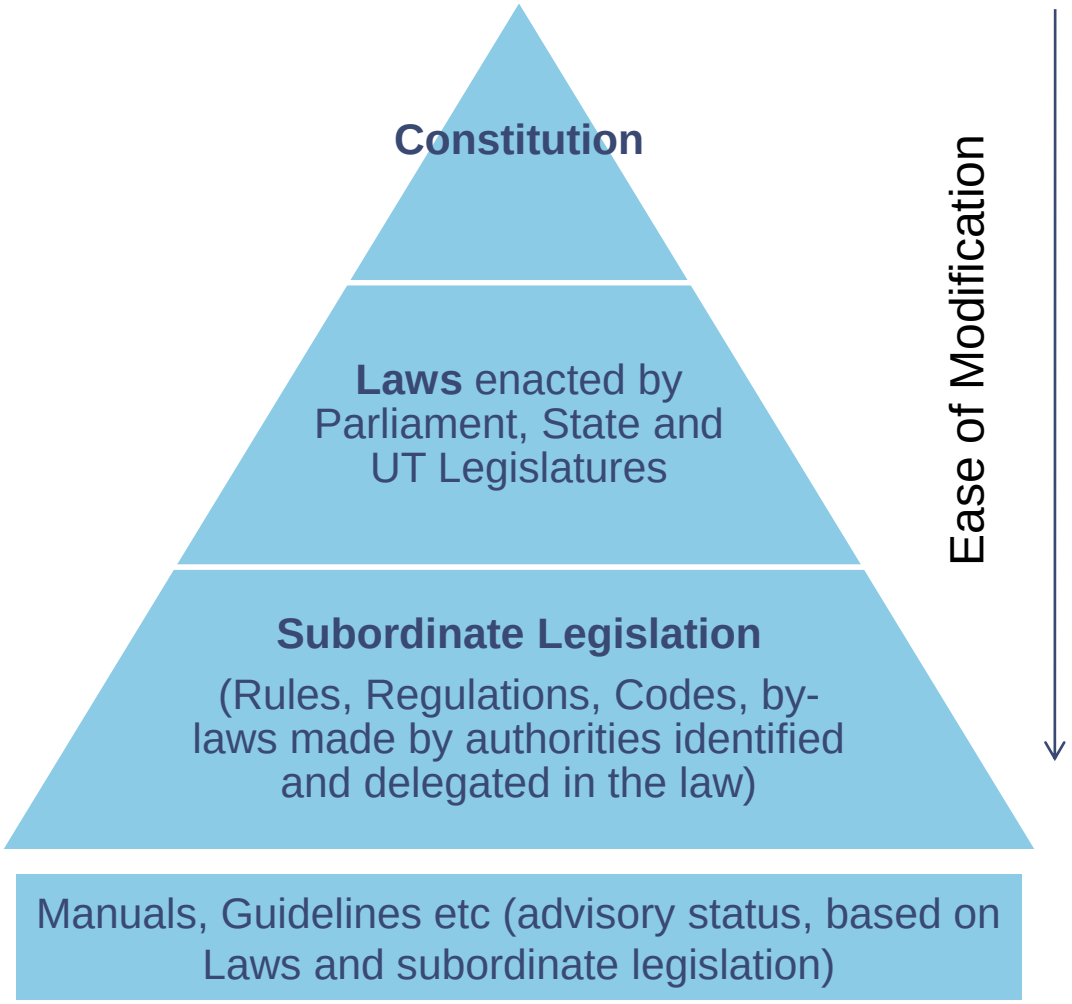
- **Eliminate waste** or non-value added activities as much as possible
- **Organise around outcomes** - treat geographically dispersed resources as though centrally located
- **Build quality in at the source** - mistake proof the process, standardize on best practices, capture information in digital form at the source
- **Find opportunities to cross train and use multifunctional workers**
- **Reduce preparation** and waiting times
- **Use parallel processing**
- **Apply automation** and appropriate technologies
- **Use visual process control systems**
- **Establish a continuous improvement capability and mindset**

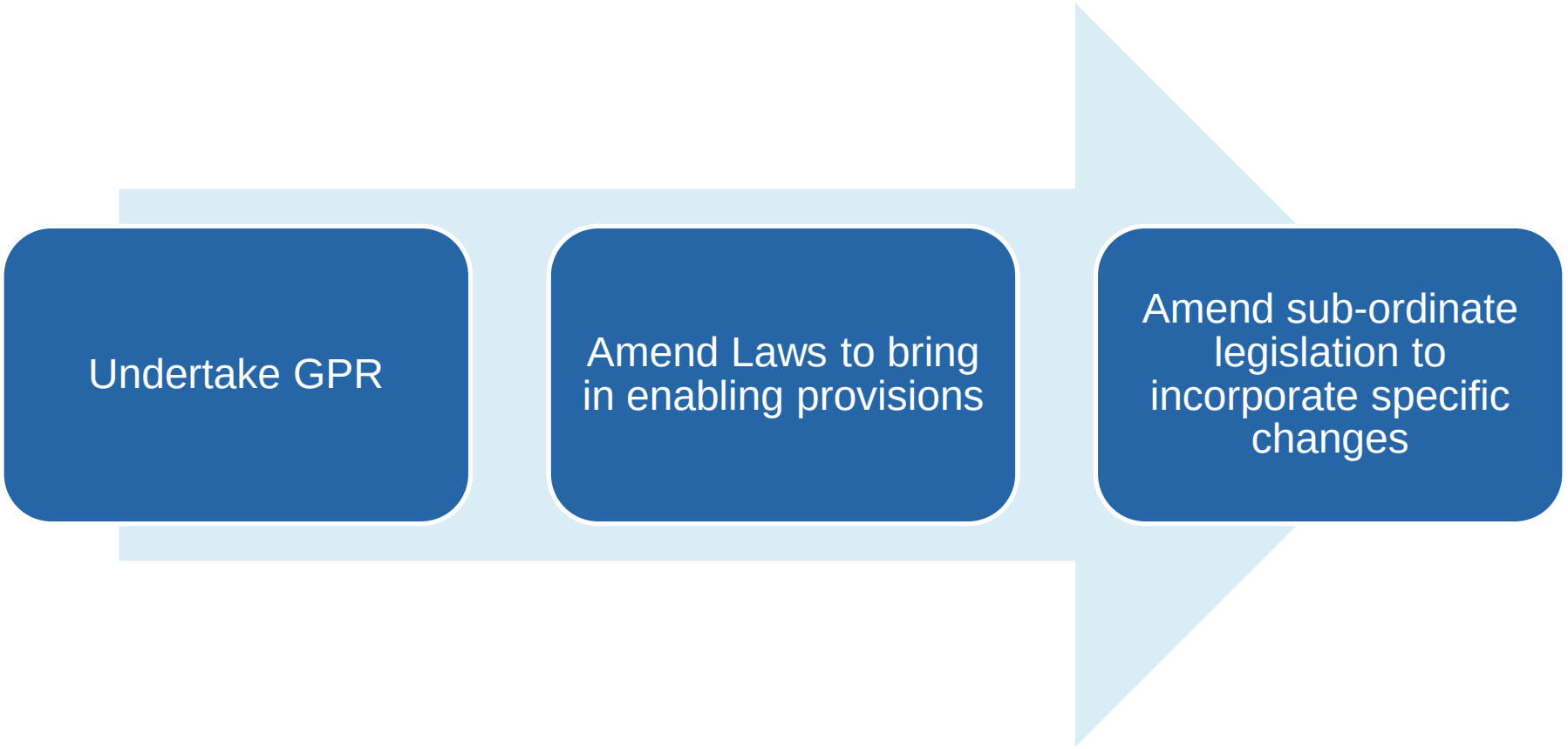
Hierarchy of Domain Legislation



Laws are enacted by Central or State government depending on whether State / Central subject

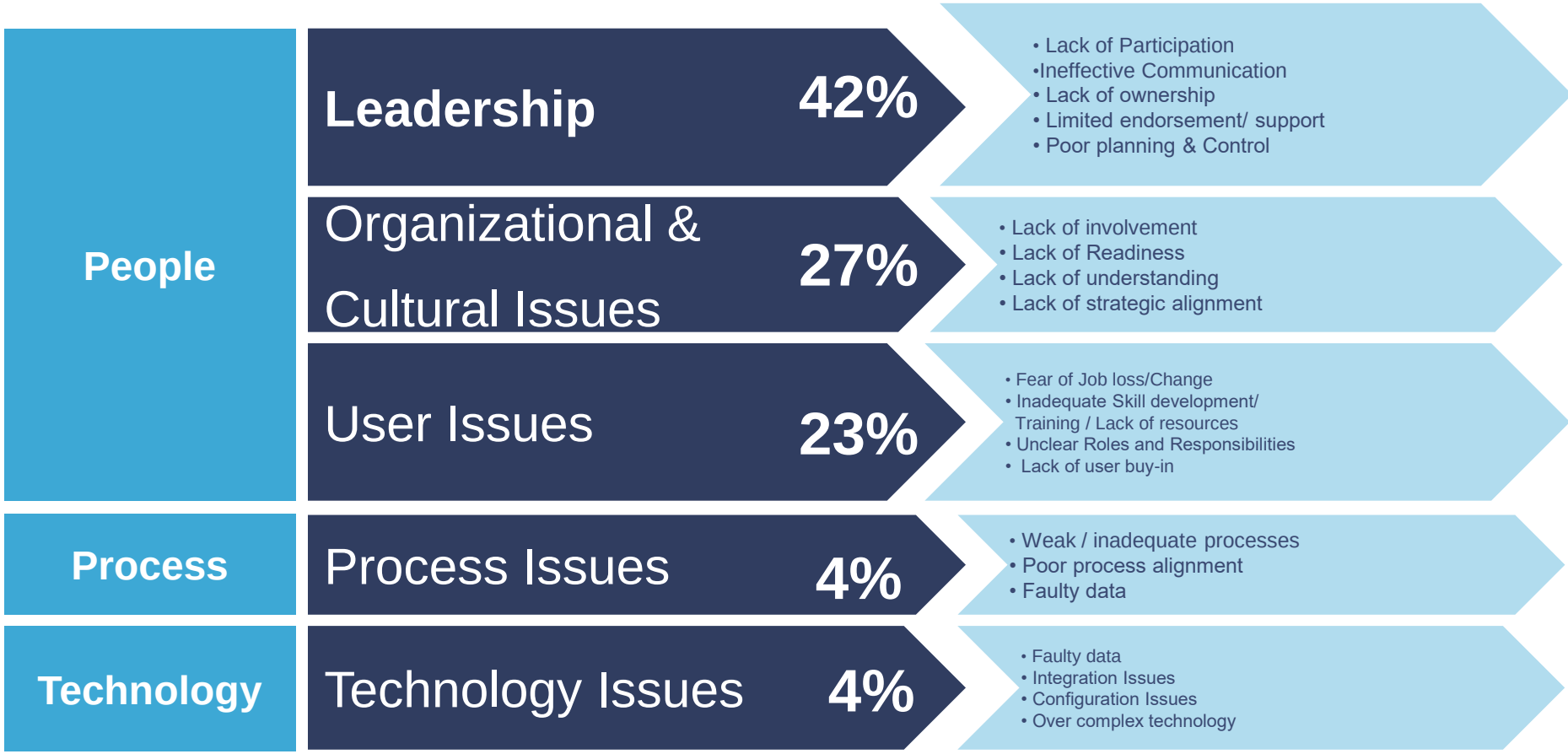
Subordinate legislation enacted by authorities identified under the law

Incorporating legal changes



Managing People Change

Almost 92 % of the challenges in a transformation exercise are around people issues



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Thank YOU

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