New ICT Systems

and

Legacy Institutions
ICT Systems - Key Issues

- Why ICT?
- Stakeholders
- Gaining Support
- Institutional Responsibility
- Institutional Capacity
- Business Operations Model
- Organizational Architecture
- ICT Function
- HR Function
- Environmental Support Issues
Are We Sure?

- Reason(s) for system should be defined
- Scope should be crystal clear and realistic
- Estimated impact should be assessed
- Gains should be clear and quantifiable
- Development cost justified & underpinned by details
- Cost of on-going operation & maintenance should be calculated
- Contingency budget must be available
Stakeholders

- Identify stakeholders & involve them at outset
- Does system require inter-institutional support (e.g. unified collection of tax & contributions)?
- Where will database(s) be managed? (e.g. Ministry/Executive Agency/3rd party)
- Who will access database?
- Who is owner of the data?
Gaining Support

- Political support necessary?
- Support from top management is **VITAL**
- Understanding & involvement from middle management - **CRITICAL**
  - Advantages **must be sold**
  - Why change? – case should be watertight
  - Who wins? – how and why
  - Who loses? – what are mitigating factors?

- Information Plan – workshops, meetings, seminars, help desk, documents
Gaining Support

• Avoid over-reliance on ICT unit for project direction

• Give business users formal co-responsibility for project steering and project success → include them on project strategy group, and in project implementation teams

• Identify ‘quick wins’ – to build user confidence
Homework First......

- Institutional Impact Assessment
  - Align with Strategic Operations Plan
  - Assess impact on Governance System
  - (Re)Define Business Operations Model
  - (Re)Define Organisation Architecture
  - (Re)Define Service Delivery Model

(Re) Define scope/design of ICT system?
Homework First......

- Institutional Impact Assessment (contd.)

• Agree Resources (human, technical and financial) – for new Business Operations Model
• Develop Risk Plan – impact on existing services during development
• Existing ICT systems – cost implications for cessation?
• Existing ICT systems – can they be integrated?
• Existing ICT contracts with suppliers – cost implications?
Business Operations Model

- Developing Business Operations Model
  - Define – who does what, where, when & how?
  - Define functions & processes – be specific, allocate tasks
  - Define workflow – be specific, deal with exceptions, take opportunity to streamline
  - Assess technology opportunities (e.g. DMS, Web) to underpin new model (links with ICT Strategy)

*Service Delivery Model*
ICT Function > Organization Structure

- ICT sometimes at wrong level in institution
- Re-position – at strategic level
- Implications for ICT function
  - integration with strategic management team
  - increase scope of responsibilities > new systems
  - re-organisation of ICT function
  - new management needed in ICT function?
  - new staff → new skills
  - up-skilling → existing staff
  - project management
Human Resources (ICT) - Impact

- Audit of ICT & business skills analysis required
- Recruit new ICT staff &/or up-skill staff?
- Can ICT staff be fitted into existing grade & pay structures?
- Is outsourcing required?
  - For what processes/services? Where to find supplier?
- Recruitment – special method needed for ICT specialists?
- Training & Development --> new skills
- Who trains? Where is training available?
- Budget – extra staff, training/up-skilling
Human Resources (Users) - *Impact*

- Benchmark existing skills and capacity of users against requirements of new ICT system
- Training program needed?
- Assess capacity of management and staff in those business functions that are critical to success of new ICT system -> re-assignment needed?
- Make sure managers in those key business functions are ‘champions of change’
Environmental Support - *External*

- Communications infrastructure?
- ISP providers?
- Technology environment – can it support technology choice?
- Where will ICT experts be recruited from? (universities, technical institutes etc.)
- Role of external consultants
Environmental Support - *Internal*

- Physical infrastructure for ICT adequate?
- Reliable electricity supply?
- Backup system – different location?
- Fire, water, theft and other hazards?
- Data Center? Cost?
- Paper archive? Migration
- Fall-back administration system?
- Legacy system – keep or phase out?
Change Management

• Develop change management plan - cover every aspect of change, especially institutional
• Strong leadership required - assign clear responsibility for implementation
• Allocate sufficient resources to change plan
• Focus on business users – not on ICT only
• System migration plan – develop, test, re-test...
• Create system implementation support team(s)
• Anticipate risk and develop mitigation steps
• Publish highlights of plan
Some Technical Considerations

• Technology choice must be sustainable and affordable
• Technology choice must be adaptable
• Enable de-linkage of back-office processing from front-office service delivery
• Keep data (and data validation rules & procedures) separate from regulation, business rules, business data validation logic
Some Technical Considerations

• Keep related functions modular – to enable amendments to be undertaken with minimum impact on related process software

• Combine similar functions across various benefit types – single registration module, single database update module etc.
Some Technical Considerations

• Avoid computerizing the ‘existing mess’ – reform the processes and work-flow first

• Data protection – ensure data is safe and reliable, by using rules, procedures and technologies to ensure security
Finally

Thank You!