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 !