

CBICT - Capacity Building through ICT

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Goal of the project

- › A reference model for capacity building projects
 - › Satcom environment
 - › Different phases
 - › Different users
 - › Sustainable



Background of the project



- › e-government initiatives in developing/ transitional countries*:
 - › 35% are total failures
 - › 50% are partial failures
 - › 15% are successes

- › The CBICT project was funded as part of the ARTES 1 Programme Element.



world summit
on the information society
Geneva 2003 - Tunis 2005

*source: egov4dev.org

What is a reference model?



The look and feel of the reference model

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Who should use the RM?

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Programme Manager

A programme manager develops a programme. A programme manager selects projects and ensures that a viable (and sustainable) case exists for the project. (S)he monitors the project ensuring that the project case remains valid throughout the project.



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Project Initiator

A project initiator evaluates and prioritises different needs and local readiness in the community. (S)he will find the right partners and contribute to the team building, get an indication of the adequate resources and develops a project plan together with the project manager. (S)he will initiate and follow the development of activities and stands by the local community acting as a stakeholder.



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Project Manager

Project managers coordinate the different actors in the day-to-day running of the project. A project manager also helps with seeking funding for his/her project. (S)he usually locally oversees the project implementation and is often the person who runs the project and is responsible to the programme manager (and other stakeholders). Together with the project initiator (s)he composes the project plan.



[more](#)



Application of the reference model



Site visit Mali



Site visit Ivory Coast



Main findings from the field (1)

- › Abstract terms are not used or understood
- › Sustainability concerns
- › Western people have a watch, Africans have time
- › Local language a must

Main findings from the field (2)

- › Formality (e.g. contracts) is rarely used in the South
- › Provide templates, examples
- › Multimedia rather than text
- › ICT illiteracy is common

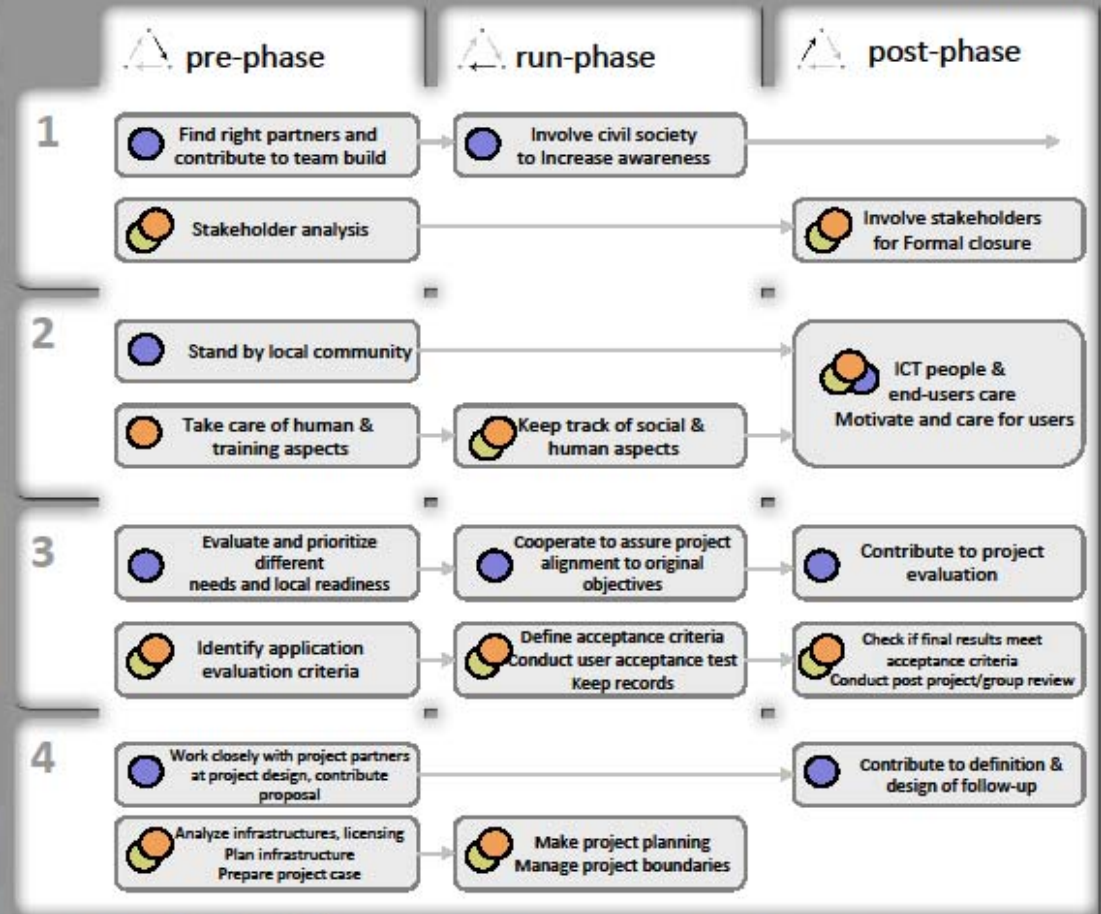
Snapshots of the Reference Model



What activities are described in the Reference Model? (1/2)

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Checklist – part 1 of 3 (pre-phase)

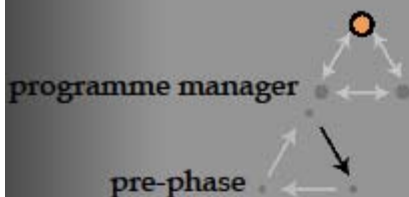
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Activities in the pre-phase

 **Programme Manager**
 **Project Initiator**
 **Project Manager**

- Evaluate and prioritise different needs and local readiness 
- Find the right partners and contribute to the team building 
- Look for adequate resources 
- Stand by local community, act as a stakeholder 
- Work closely with project partners at the project design, contributing to the proposal 
- Design, execute and manage the communication plan to involve other stakeholders into the project. 
- Be aware of the risks of the relevant sector and make your own risk assessment  
- Make sure the project is financially, socially and environmentally sustainable  
- Be sure to know which people are involved and what their position is (stakeholder analysis)  
- Take care of human and training aspects 
- Make sure to know the conditions of infrastructure, property, licensing (national and international), housing and equipment 
- Have a clear idea and plan on your infrastructure as early as possible 
- Prepare a project case 
- Be sure to know what the communication and information flow needs are 
- Identify application evaluation criteria  
- Define the mission, scope and objectives of the programme (roundtable process)  
- Select the relevant personnel 



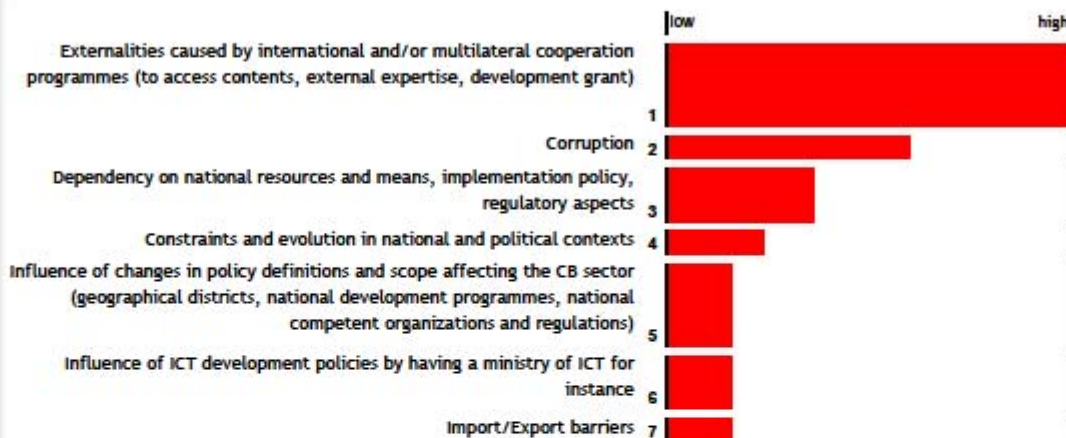
Risks Civil Society – Structural Risks

Healthcare Education **Civil Society** Governance

Strategic Risks **Structural Risks** Technical Risks

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- Externalities caused by international and/or multilateral cooperation programmes (to access content, external expertise, development grants)**
 Many of the CSOs are financed by external parties. That influences the policies of these organisations and indeed their content might also be dependent upon external resources.
- Corruption**
 The impact of this risk is high. The probability depends on how the organisation is governed and to which extent it can exercise social control. Therefore we have rated it as 3. Consideration should also be given to appropriation of technology by the project beneficiaries.

checklist

[about](#)

[glossary](#)

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Next step – the business model

- › Main challenge:
 - › dramatically lower the costs and improve availability of the satellite capacity by sharing bandwidth
- › Main target:
 - › Define a sustainable business model

Define a suitable business model that incorporates

- how to arrange and organise the satellite capacity
- a group of different users (NGO's, schools, hospitals, internet cafés, farmers, etc.)
- no terrestrial network is available
- service offerings by Satellite operators
- regulatory aspects

The STOF model

- › The business model is written according to a STOF structure:
 - › **S**ervice
 - › **T**echnology
 - › **O**rganisation
 - › **F**inance

Why do we develop this new business model?

- › Satellite bandwidth is so expensive in Africa, that
 - › a fast satellite connection cannot be afforded
 - › an affordable connection is so slow it is not effective

The basis of this new business model:

- › a cooperative entity buys high quality satellite bandwidth,

which is shared between members

in such a way that everyone benefits

Clustering of applications

- › **Bronze:** operational management (logging) applications
- › **Silver:** distance learning applications
- › **Gold :** tele-medicine, 2nd opinion (safe) applications and large number of users/sites (info-recreational) applications
 - › possibility to book a X hour of uncontended Bandwidth (BW) each months. Consequence:
 - the BW could have been taken shrinking the overall available BW or procuring additional BW.

Three options have been worked out

- › Start up: one CBICT initiative
- › A couple of CBICT initiatives cooperate under a construction of a **VNO**.
- › A couple of CBICT initiatives cooperate under a construction of a **Full provider**

Conclusion – Sustainable solution?

- › Comparison of the Net Present Value (NPV)
 - › Number of CBICT initiatives
 - › short, medium and Long term
- › Realistic scenario (2 initiatives in 1st year): VNO is preferred
- › Challenge scenario (4 initiatives): Full provider is preferred, but the Discounted Cash Flow (DCF) is very negative in the first two years
- › Very ambitious scenario: Full provider NPV is the biggest

Number of CBICT Initiatives ↓	Short Term (within 4 years)	Medium Term	Long Term
Very Ambitious (10 first year)	Full Provider- VNO- Start up -	Full Provider+ VNO+ Start up --	Full Provider++ VNO++ Start up --
Challenge (4 first year)	Start up - Full Provider--	Full Provider+ VNO-	Full Provider+ VNO+
Realistic (2 first year)	Start up - VNO- Full Provider ---	VNO- Start up -- Full Provider ---	VNO- Start up -- Full Provider ---

Conclusions (2)

- › The big advantage of this business model is the availability of a service offering for uncontended scheduled option
- › In case the customers are willing to pay for that service it has a huge impact on the NPV.
- › Delivering a good Quality of Services has a huge impact on the NPV. In most instances it makes the difference between a positive NPV and a negative NPV

The output the study is

1. A reference model
2. a business model report (approx. 30 pages)
3. an analysis document (approx 140 pages) with background information that has led to the business model report
4. a spreadsheet for calculating the financial sustainability of a satellite based capacity building project.

Need to know more?



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- › All deliverables (Reports, Reference Models and Business Model) can be downloaded from: <http://telecom.esa.int/cbict>