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The NREN Business Model

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- › “An NREN can only become sustainable if a long term, transparent, operational plan has been developed that has support of the NRENs member constituency.”
- › This requires a process approach.

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Process of development Business Model

NREN mission

Telecom challenges

Member constituency

Service portfolio



Network architecture

Governance

Organisation

Financial model

Sustainable NREN



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NREN mission

In the case of NRENs



- Owned by member constituency
- There should be sense of ownership
- Therefore iterative process with stakeholders
 - Government
 - Member constituency
 - Other (e.g. Telecom operators)

NREN services are more than merely providing Internet!

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User analysis

- Who are the potential members/users?
 - Do not dilute the innovative mission of the NREN
- Even HEI's and research institutes should have a minimum maturity level

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Telecom Analysis

- › The NREN needs telecommunication license (or exempt)
- › The NREN needs to create Gigabit national network
- › Last mile challenge needs to be tackled
- › International connectivity remains a challenge
- › ICT maturity of NREN institutions is bottleneck in connecting new users

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NREN services

- › NREN services are more than providing commodity Internet
- › Types of services:
 - Must have
 - Should have
 - Nice to have
- › Do not provide services that are available on the market at affordable prices

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NREN architecture

- › What is the status of the national infrastructure
 - Are national telco's friends or an enemies?
 - What are advanced services in the country?
 - What to do with the difference between the capital and the provinces?

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NREN governance

Two layer structure

- Council of Representatives
- NREN Board

Something to consider:

- Broaden collaboration under Council of Representatives:
 - Software licenses
 - Library collaboration (Journals, catalogue)
 - Research facilities
 - E-learning

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NREN organisation

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    graph TD
      CB[Council Board] --> CEO[CEO]
      CEO --> OM[Office Management & Admin]
      CEO --> OS[Office Security]
      CEO --> CTO[Chief Technical Officer]
      CEO --> PI[Promotion & Innovation]
      CEO --> AS[Assessment]
      CTO --> NIS[Network Infrastructure (NI)]
      CTO --> SD[Support Staff]
    
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- Gradual growth
- Extra staff if services are financed by members
- Not only technical support of members, also innovations

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Financial model

Everything comes together:

- Costs of national network
- International connectivity
- Staff costs
- Service costs

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Example of OPEX 2012 - 2016

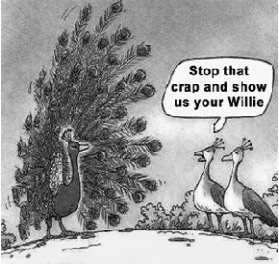
Category	Amount	Total
Staff costs	7,36,433	\$3,102,453
International traffic	70,500	\$329,000
Office	35,000	\$174,000
NOC	6,400	\$54,000
National network	102,900	\$4,522,000
ZAMREN activities	30,000	\$155,000
Total	981,233	\$6,337,453

Expense level 2014 and onwards around 2M\$/year

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From plan to implementation ...



A cartoon illustration featuring a peacock on the left and a rooster on the right. The rooster has a speech bubble that says "Stop that crap and show us your Willie". The peacock is looking towards the rooster.

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A black and white photograph showing a group of students sitting on wide stone steps in front of a large, classical-style building with arches. The students are engaged in various activities, some talking and some looking towards the camera.
