

Affordable Mobile Broadband Services: Models and the Way Forward

Fisseha Mekuria, PhD.
CSIR Modelling and Digital Sciences,
Pretoria 0001, South Africa.
fmekuria@csir.co.za


W3C Maputo

4/4/2009



www.csir.co.za

W3C Maputo

Affordability - Beyond SMS

- Mobile Broadband – Future of mobile web.
 - Network Infrastructure & Operational cost
 - Cost of Mobile Content & Services
 - VNOs vs MNOs ?
 - Innovative mobile broadband services
 - Socially relevant services
 - Dev. Country context
 - M-Health, M-E-Gov., M-Pay/Bank, M-EDU, M-Agr...
- 

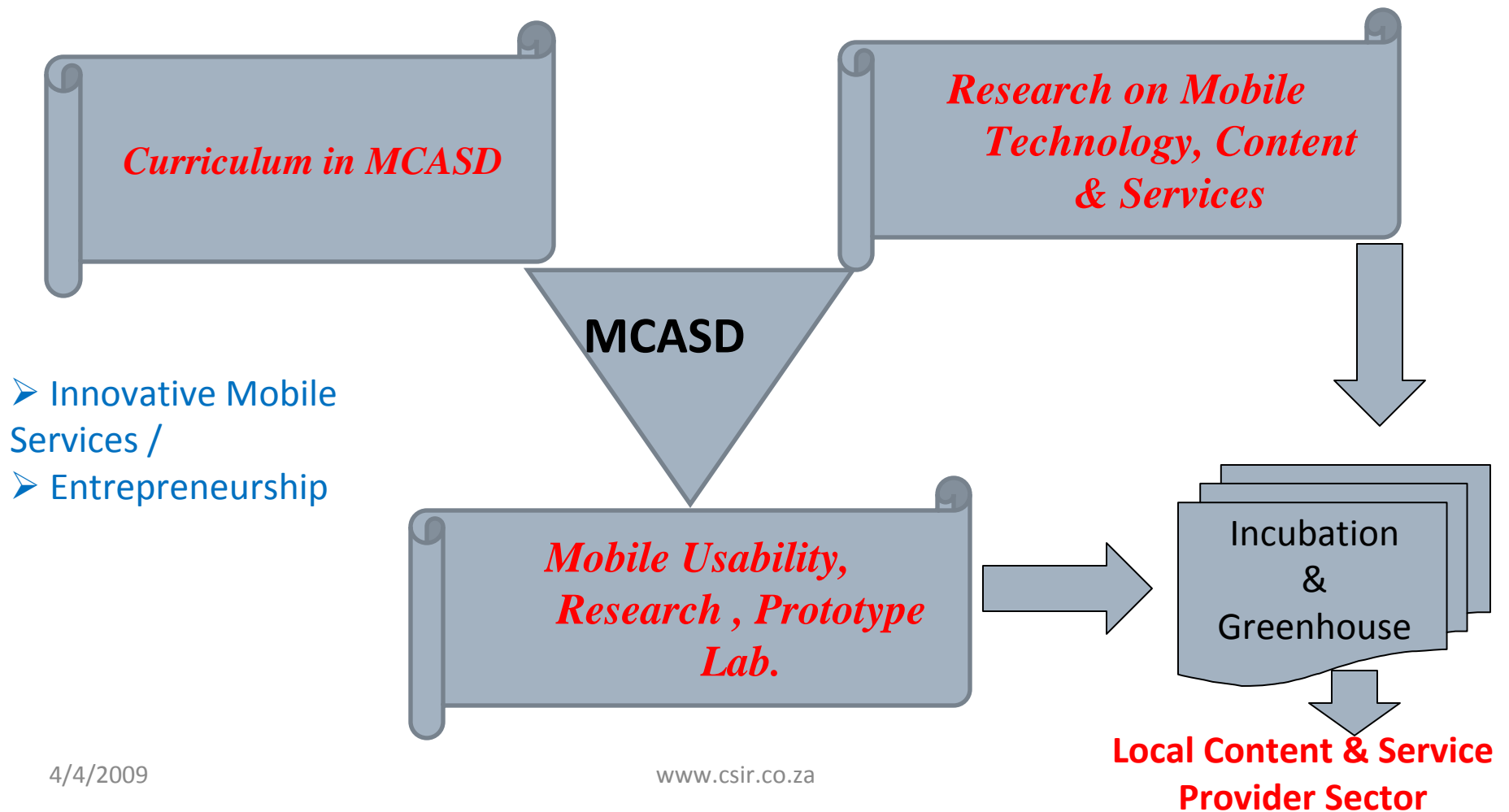
Affordability Models

- ❑ Local Mobile Content & Service Development. 
- ❑ Echo System of Rural & Urban SN - ILC
- ❑ RAN Network Sharing 

Educating Architects of the Mobile Economy!

Mobile Computing & Appl. Software Development :- MCASD

Model 1

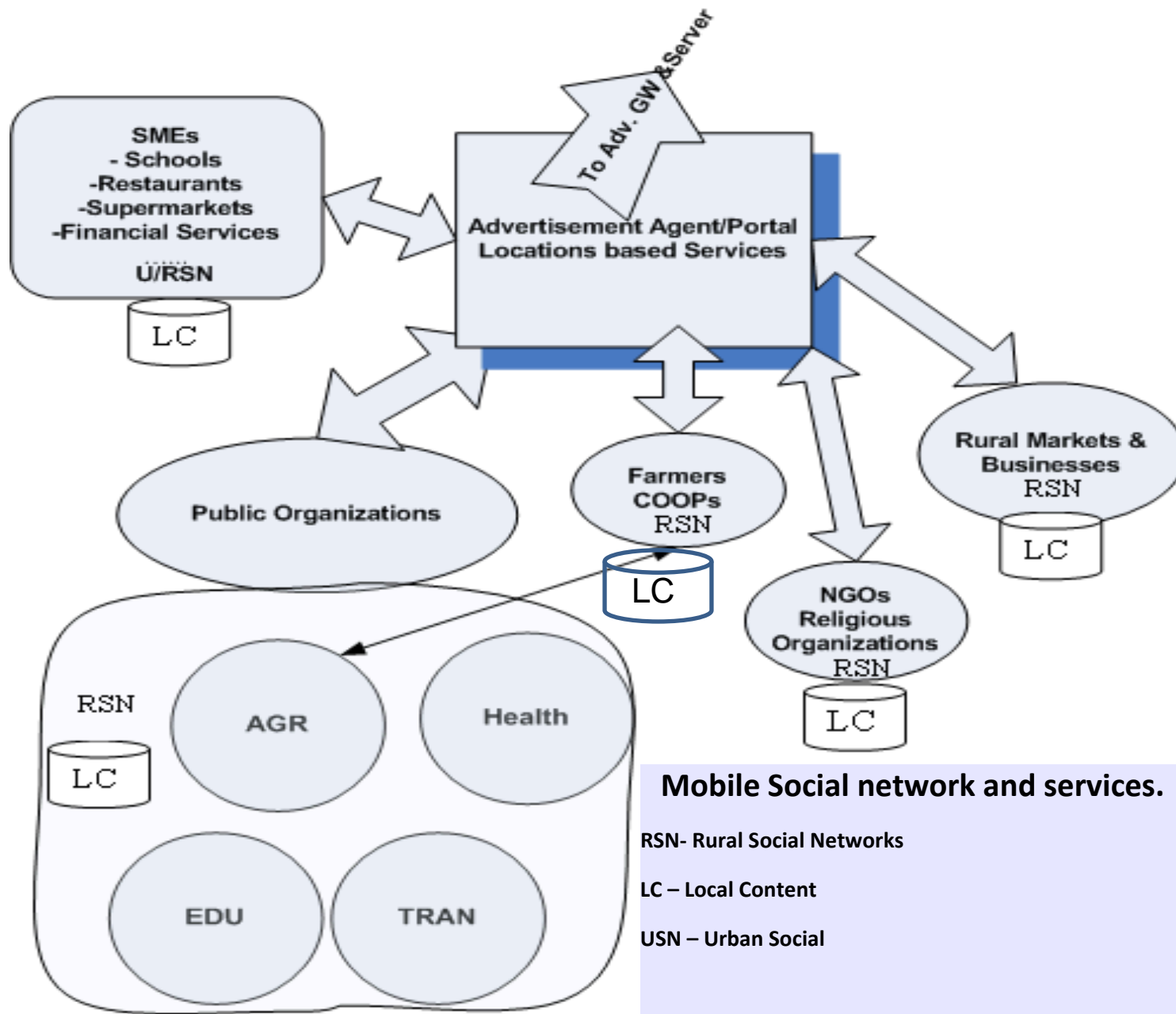


Model-1 Characteristics

- Affordability Improvement
 - Locally developed -> Low cost
 - Tailor to the needs of local communities
- Sustainable Mobile Tech & Service Development
 - Capacity building & Research Support from HEI
 - Appropriate Technology & Usability
 - Service Relevance & Local Language Support
 - Sustainable Echo System
- African HEI - Low Resources !

Affordability Model-2: Mobile Social Networks

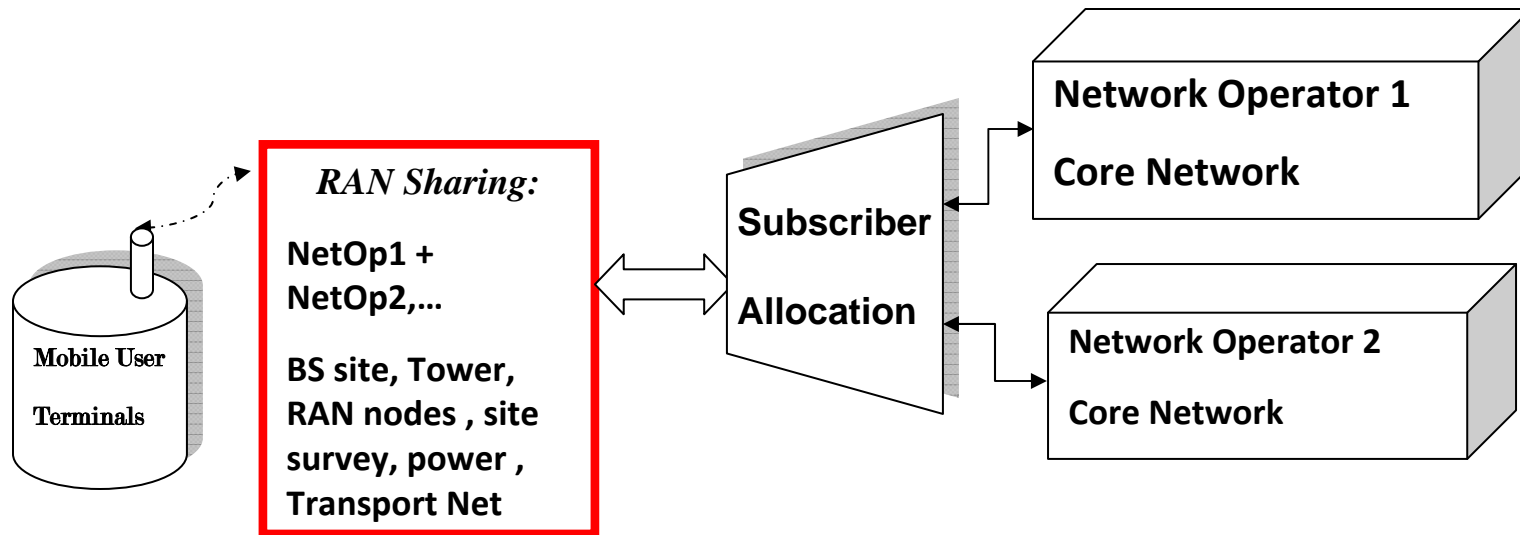
- Creation of an Echo System of R/USN
 - Promote dev. Indigenous Local Content (ILC)
 - A bottom –up mobile business model
 - Promoting dynamic **content based mobile services**
- HEI & NGO support in the creation of ILCs
- Network Operators & MVNOs use of ILCs
- ILCs+ Mobile Adverts as a cost reduction tool
 - Location Information and Intelligence in ILCs



Affordability Model-3: RAN Sharing

- A new Techno-Economic Model
 - Competing operators collaborating on RAN Access
- Implications and Long term sustainability
 - Lower Mobile Broadband CAPEX & OPEX
 - Reduction of Mobile Service Costs
 - Lower Energy Requirement - RDC
 - Environmental Sustainability
- An Appropriate model for Developing Countries.
- Regulatory incentives ?!

Radio Access Network Sharing Concept.



Notes:

- ❖ Only European Operators Going for RAN sharing
 - ❖ T-Mobile & 3UK : ~ 2 Billion Euros, ~ 5000 BS sites, less OPEX
- ❖ Why not RAN sharing in Africa ?

Conclusion

- Need for Infrastructure Network Upgrades
 - Collaborative Techno-economic Model
 - Support for Local Innovative Mobile Services
- Affordability limiting the potential.
 - Promoting Mobile Social Networks.
- Need for more studies on Affordability.
- More Enabling Policies & Incentives.

Thank You !

- *The Future is Looking Back at us!*

While there are other forces that create setbacks, it is still our choices that determine whether or not we climb forward or fall behind !