



**INSTITUTE of
INVENTORS and
INNOVATORS**
A HOME FOR INVENTORS



Innovation for Profit or for People? Do you have to choose?

Presentation to the Regional Innovation Forum PE
23 June 2011

Do you really know the world we live in?



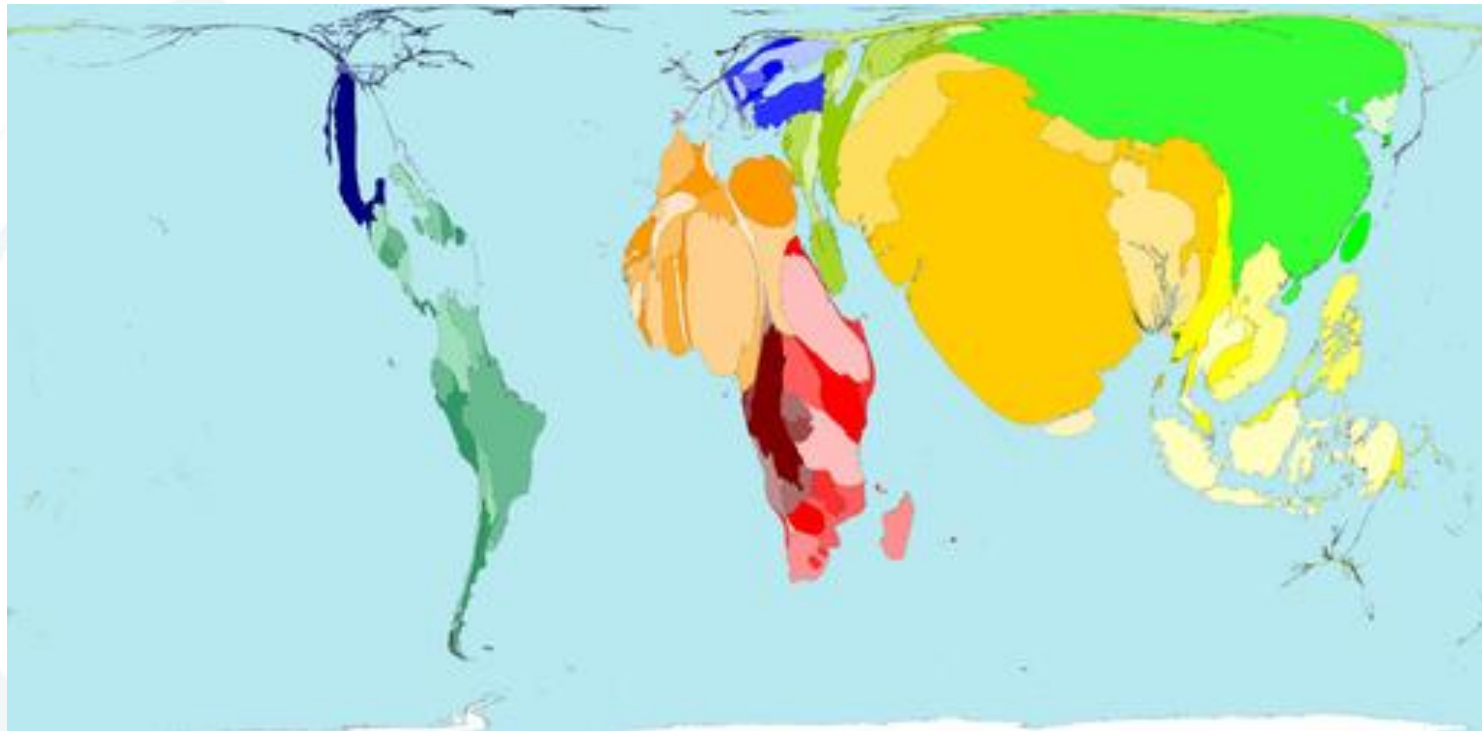
Tackling current global concerns will take
IMAGINATION, INVENTION and
INNOVATION

A Quote from Bill Gates in the 2010 letter to the U.S. Congress

Society underinvests in innovation in general but particularly in two important areas. One area is innovations that would mostly benefit poor people there is too little investment here because the poor generate a market demand. The second area is sectors like education or preventative health services, where there isn't an agreed-upon measure of excellence to tell the market how to pick the best ideas.



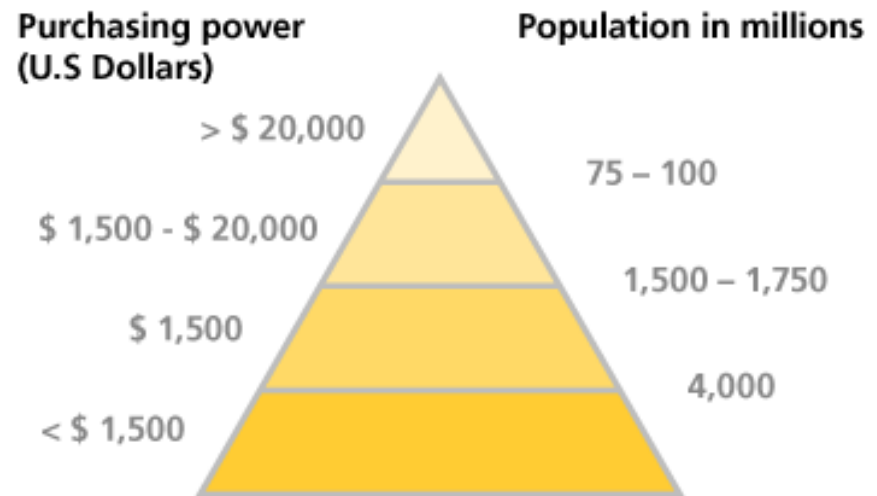
Territory size shows the proportion of all people living on US\$10 purchasing power parity or less a day worldwide, that live there.



The Fortune at the Bottom of the Pyramid

If we stop thinking of the poor as victims or as a burden and start recognizing them as resilient creative entrepreneurs and value conscious consumers, a whole new world of opportunity will open up.

CK Prahalad



The Fortune at the Bottom of the Pyramid- C.K. Prahalad

Market Development based on three A's

“ Affordability

What can the market afford, how can the price be adjusted to improve affordability

“ Access

Can the market get the product when it is needed? If it is only available in shops in the CBD that close by 5pm and not at the local spaza does the market at the bottom of the pyramid truly have access.

“ Availability

Distribution network

Not so different to the 4 P's in marketing?

Price – Product – Placement – Promotion?

But much greater emphasis on understanding the client needs



Can Innovation that makes a Difference make Money???

India travels by motorcycle and has over 100 000 fatalities per annum



The Story of the Tata Nano

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Build a car that

- . Is low cost (about \$2500)
- . Meets regulatory requirements
- . Meets performance targets for fuel efficiency and acceleration capacity

First prototypes were quadri-cycles with bars instead of doors and flaps to keep out the monsoon rains.

“It was an embarrassment” – Girish Wagh – Engineering Team Leader.

Ratan Tata did not allow the team to give up and brought together the entire supply chain



Some examples of innovations in the Tata Nano

Rane Group Rack and Pinion

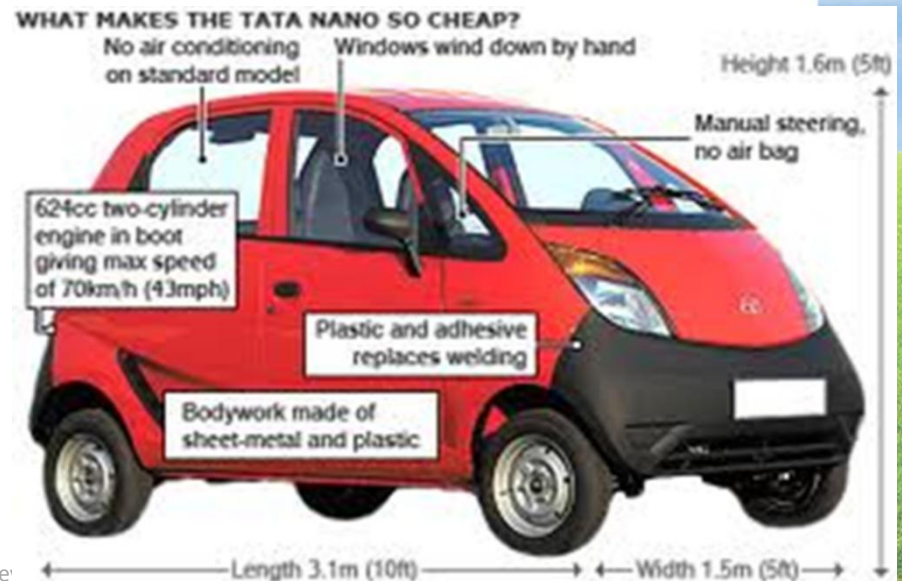
- Reduce weight –steel rod replaced with steel tube
- Two piece component redesigned to one piece massive savings on machining and assembly costs.

GKN Driveline Driveshaft

- 32 experimental systems developed
- Rear wheel drive system with a smaller diameter driveshaft resulted in a lighter component and savings on material costs.

A 623 cc Engine

- Developed by Tata engineering team



And the rest as they say is history.....

The Tata Nano launched in January 2008

In Tata head office display of a Tata Nano and a stripped down version side-by-side

They ask “How do we improve?”



What are the lessons learnt from the Tata Nano

- The right technology must work on the factory floor and on the bottom line
 - The supplier innovations throughout the value-chain made the production of low cost, safe, family car possible.
 - About 36 separate patents have been filed
- Understand the market
 - The Tata Nano is a product created for a substantial market that existed, but was previously ignored – because the assumption was that the market did not have purchasing power.
- The right leader and team can make the impossible possible

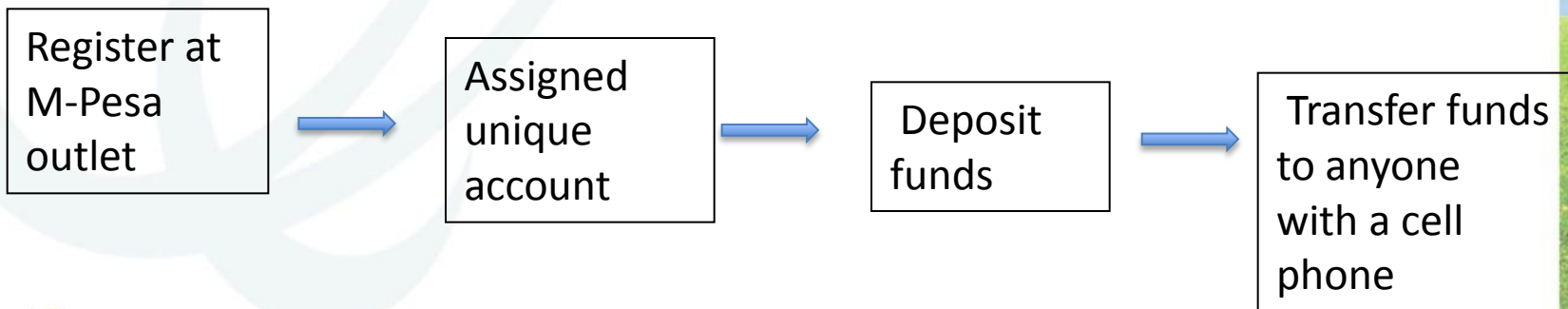


The story of M- Pesa in Kenya

What is it ?

- “ M-Pesa is an electronic wallet
- “ An electronic payment and store of value system that is accessible from ordinary cell phones.

Assigned unique account
linked to phone number Deposit funds
transfer funds

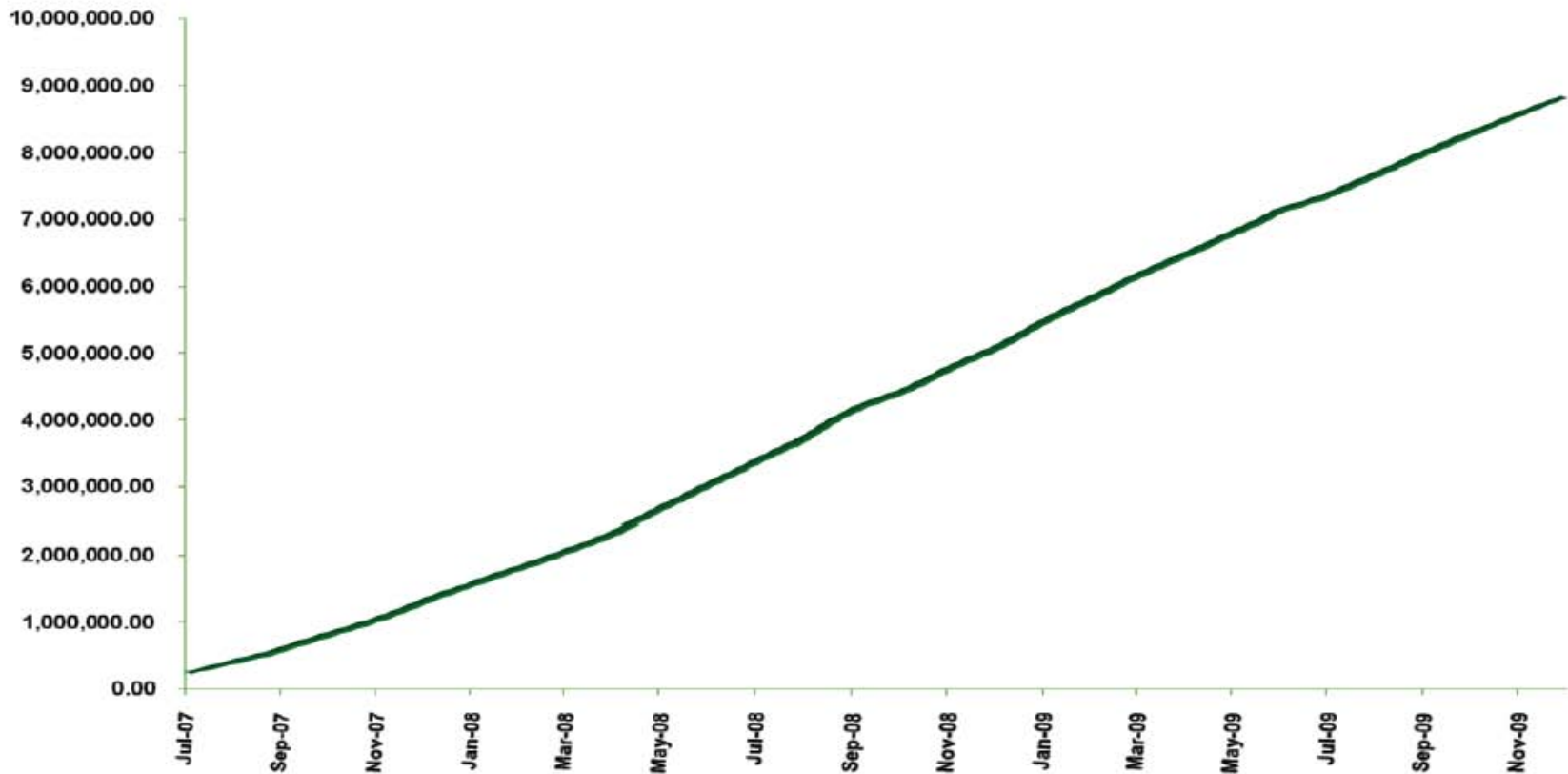


How It happened

- “ People in Kenya were already using airtime as a form of payment.
- “ UK based Vodaphone team worked on an idea to use the mobile phones as a tool to provide financial services. The Safaricom (Vodaphones Kenyan affiliate) team in Kenya seized the idea and developed it thoroughly.
- “ Central bank of Kenya acknowledged the results of the FinAccess survey (2006) that showed very poor levels of bank penetration and innovative solutions were needed.
- “ DFID (UK) funded the FinAccess survey and provided seed funding to Vodaphone to conduct initial trials on M-Pesa



Growth of the M-Pesa Customer Base

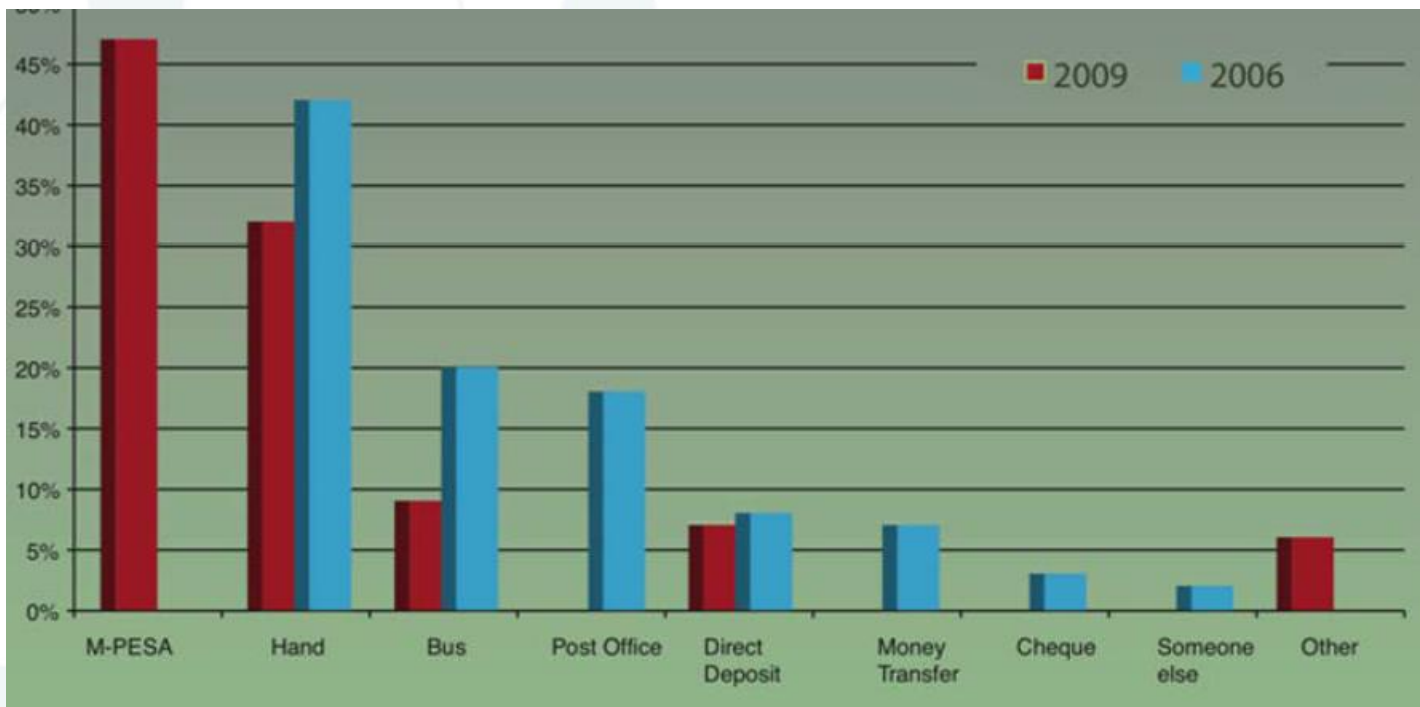


The latest developments and figures reported by Safaricom as of January 2010 are:⁷

- 9.0 million registered customers, of which the majority are active. This corresponds to 60% of Safaricom's customer base, 23% of the entire population, and 40% Kenyan adults.⁸



Money transfer behaviour before M-Pesa



M-Pesa launched in South Africa in 2010

Mike Brown, Nedbank Group chief executive

“In South Africa, cellphone penetration is extremely high, and yet it is estimated that more than 13 million economically active South Africans do not have a bank account. By providing basic [financial services](#) accessible to all, M-PESA is well positioned to drive economic activity. We also believe that it will contribute significantly towards easing many of the burdens currently faced by the unbanked in South Africa, thus bringing marginalised individuals into the economic mainstream.”



What can we learn from the M-Pesa story

- “ Financial inclusion is a fundamental step towards getting out of the poverty cycle.
- “ Understanding the unmet needs of poor people is key to unlocking the solutions.
- “ Sophisticated technological solutions can be applied to provide a product that was thought to be out of reach and unaffordable to poor people.
- “ The sale of products that meet the need of poor people can be profitable venture when executed effectively.



Why is PE well positioned innovate for people and profit

- “ A regional innovation forum composed academia, private sector and public sector – Amazing opportunities for collaboration that may not ordinarily happen
- “ Challenges experienced in the Eastern Cape often represent challenges around the developing world
- “ World class manufacturing capability
- “ World class academic research
- “ Cutting edge technology can be used to meet the challenges of the developing world
- “ Innovations developed here can change the world!



The I3I would like to work with you

1. Provide support to inventors – full chain
2. Assist inventors improve the quality & value of their inventions – and make more money
3. Assist to get inventions into the market – faster, reduced cost
4. Increase success rate and reduce risk/failure
5. Improve international competitiveness

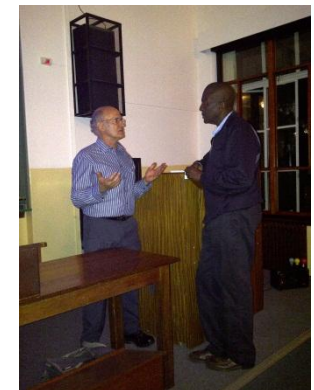


Which ones are SA inventions?

What we do to help inventors and innovators?

The III is a registered non-profit organisation and membership is free!

- “ Branch Meetings – networking, information exchange, mentorship
- “ Advice (Pitch-it-to-the-Panel, Consultations)
- “ Training (patent searches, etc.)
- “ Web based information and tools
- “ Newsletters
- “ Linkages and referrals



Future Impact of the III

1. Promote, nurture, enhance a culture of innovation in South Africa
2. Raise issues around innovation in public fora and raise awareness on issues of innovation
3. Develop SA capacity – invention, innovation, IP
4. Create a consistent pipe line of globally competitive innovations
5. Increase success rate – reduce failure & risk
6. Reduce cost & time to market in South African inventions
7. Increase local & international investment in SA



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