

Biosafety Communication Experiences in Africa



Identified 3 key needs:



Communication challenges and best practices



Biosafety communications skills development

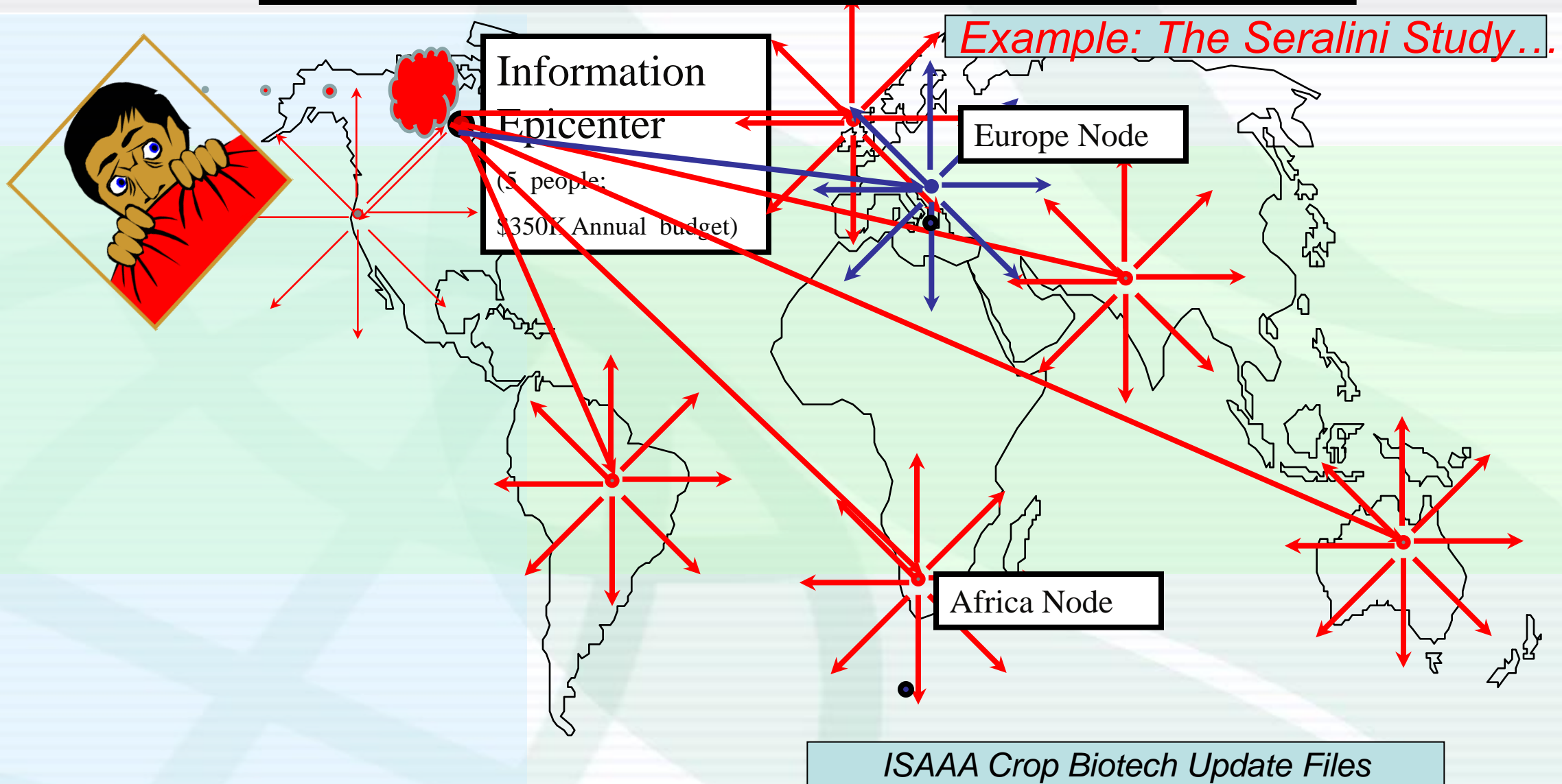


Formation of a community of biosafety communications' practitioners

Biosafety Communication Challenges

The Networked World

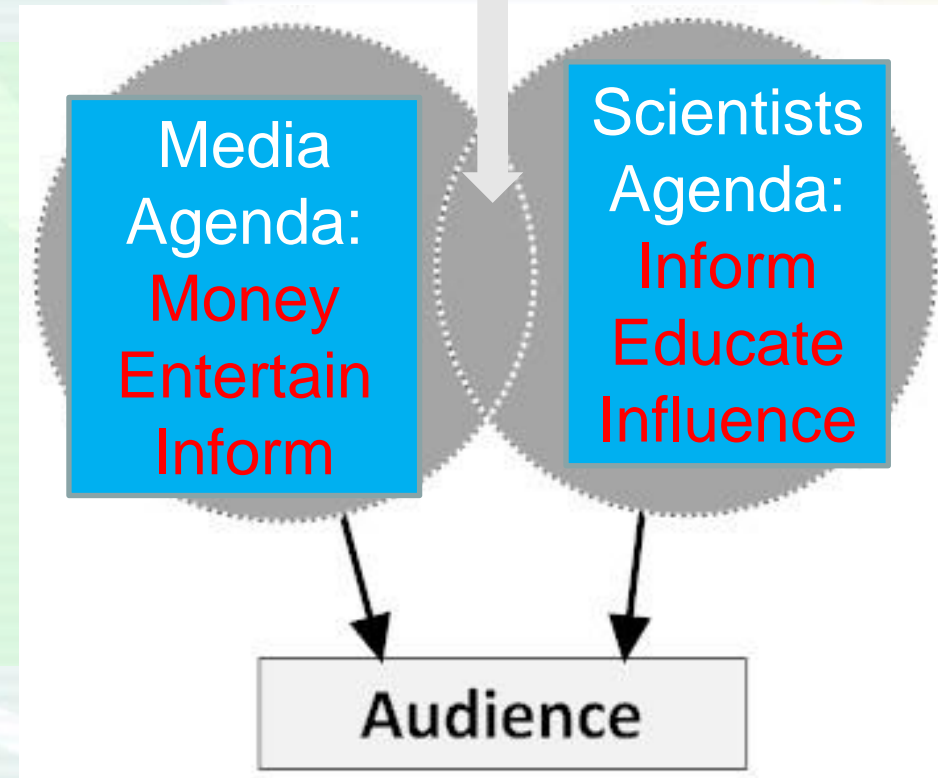
Myths and misconceptions diffuse fast!



How the media operates: News values leave science stories little to no chance!

Proximity
Conflict
Drama
Oddity
Consequence
Sex
Emotions
Prominence
Progress
Immediacy

Elusive middle ground



Mass media sensations through fantasies, myths, fairy tales

COMING SOON
GMO ORANGES
MADE WITH
PIG GENES



Are you eating
science's
mistakes??

Creating:

- ✓ Fear
- ✓ Anxiety
- ✓ Outrage
- ✓ Mistrust



RISK PERCEPTION VS
REAL RISKS

Public perception of risk is strongly influenced by

Four factors:



- ✓ **Trust**
- ✓ **Benefit**
- ✓ **Control**
- ✓ **Fairness**

Ref: Risk Perception Theory

Non-verbal communication in Biosafety

A serious communication Gap!



Some Biosafety procedures cause public outrage and panic!



Non-Verbal Communication.. Launching of Biosafety Greenhouse

INTERNATIONAL SERVICE
FOR THE ACQUISITION
OF AGRI-BIOTECH
APPLICATIONS



Former
Kenyan
President



Colour scheme?

Preparing for Effective Biosafety Communications

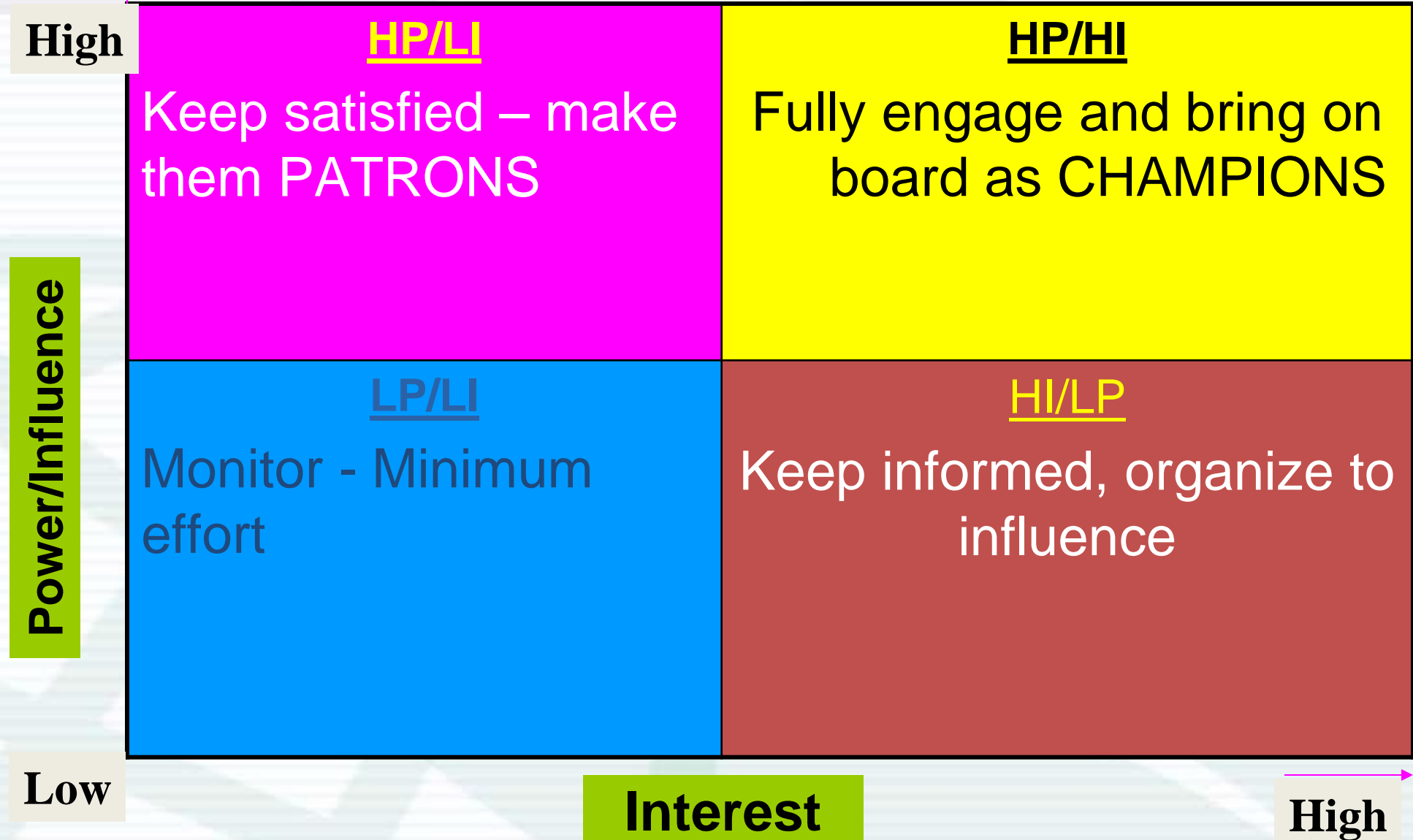
Rationale for Risk Communication in Modern Biotechnology

*A **component** of Risk Analysis:
(NOT AN OPTION!)*

*Risk Assessment
Risk Management
Risk Communication*

Step 1: Understand your Stakeholders

Stakeholder Analysis and Net-mapping



Step 1..Netmapping to understand relationships and connections



Step 2: Skills development

■ Appropriate messaging

- Using appropriate language for different stakeholders
- Packaging and delivery channels of biosafety decisions

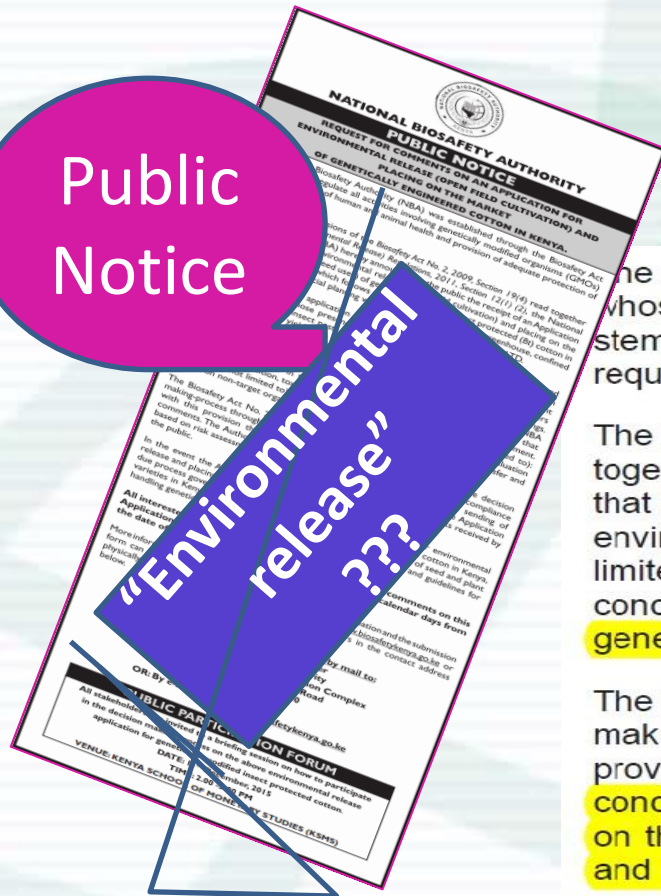
Public
Notice

“Environmental
release”
???

Toxicity and
allergenicity?

Bt maize
encodes for
cry1Ab gene

Invasiveness
Horizontal
gene
transfer?



The content of the application states that the Bt maize encodes *cry1Ab* gene whose presence provides protection against attack from the stem borer. It indicates that the Bt maize will require less insecticide and thus costs less to produce.

The Application is currently under a science-based review process by NBA together with relevant regulatory agencies and independent experts to ascertain that the proposed product is safe for human and animal health and to the environment. Key issues considered in the safety assessment include (but not limited) to: nutritional composition, **toxicity and allergenicity**, while environmental concerns include (but not limited) to: **persistence and invasiveness, horizontal gene transfer and impact on non-target organisms.**

The Biosafety act No. 2, 2009 provides that the public participates in the decision-making process through submissions to the Authority. It is in compliance with this provision that we request the public to participate through **sending of comments, concerns and/or objections.** The Authority therefore, **will make the final decision on the Application based on risk assessments, socio-economic considerations and comments received from the public.**

Step 2.. Anticipating public concerns and developing a rapid response plan

NEMA CEO:
Unsure of NPTs
Experimental
design?

State's conditions for GMO trials

Nema says no licence will be issued before experimental design is scrutinised to ascertain safety of the entire process



WE MUST BE ASSURED
THEY HAVE CAPACITY
TO MITIGATE AGAINST
CROSS POLLINATION
TO SAFEGUARD

maize variety proponents — the Kenya Agricultural Livestock and Research Organisation (KALRO) and their partners, Africa Agricultural Technology Foundation (AATF) — to seek a permit from Nema.

This was the culmination of a five-year project named Water Efficient Maize for Africa (Wema) that aimed to produce a drought-resistant maize variety as a way of promoting food security among Africans.

Safeguard public health

NBA said the two agencies should also work closely with the Kenya Plant Health Inspectorate Service (Kephis) during the trials to safeguard public health.

"We must be assured they have capacity to mitigate against cross pollination to safeguard citizens against consuming untested foodstuffs that could contain harmful toxins," said Prof. Wahungu.

BT maize trials had been sanctioned by the National Biosafety Authority which directed that Kenya Plant Health Inspectorate Service and Nema be closely involved to ensure all safety effects are mitigated.

Note: Urgent Biosafety issues requiring immediate response!



Agriculture
Minister
Cross-
pollination?
Contamination?

Skills development..

3. Handling challenging situations (allegations, “what if”...

- The line between biotech advocacy and biosafety communications – **countering falsehoods while maintaining impartiality**
- Understanding how the media operates and how to deal with them

There's an emotional toll ...



66%

feel stressed or
anxious if they
know a difficult
conversation is
coming up

Background
conversations

Skills development..

Visibility

■ Public Outreach

- i) Being more pro-active than reactive – issues management plan
- ii) Exerting authority by defending biosafety decisions as competent body
- Building a brand – need to be seen, heard and trusted!



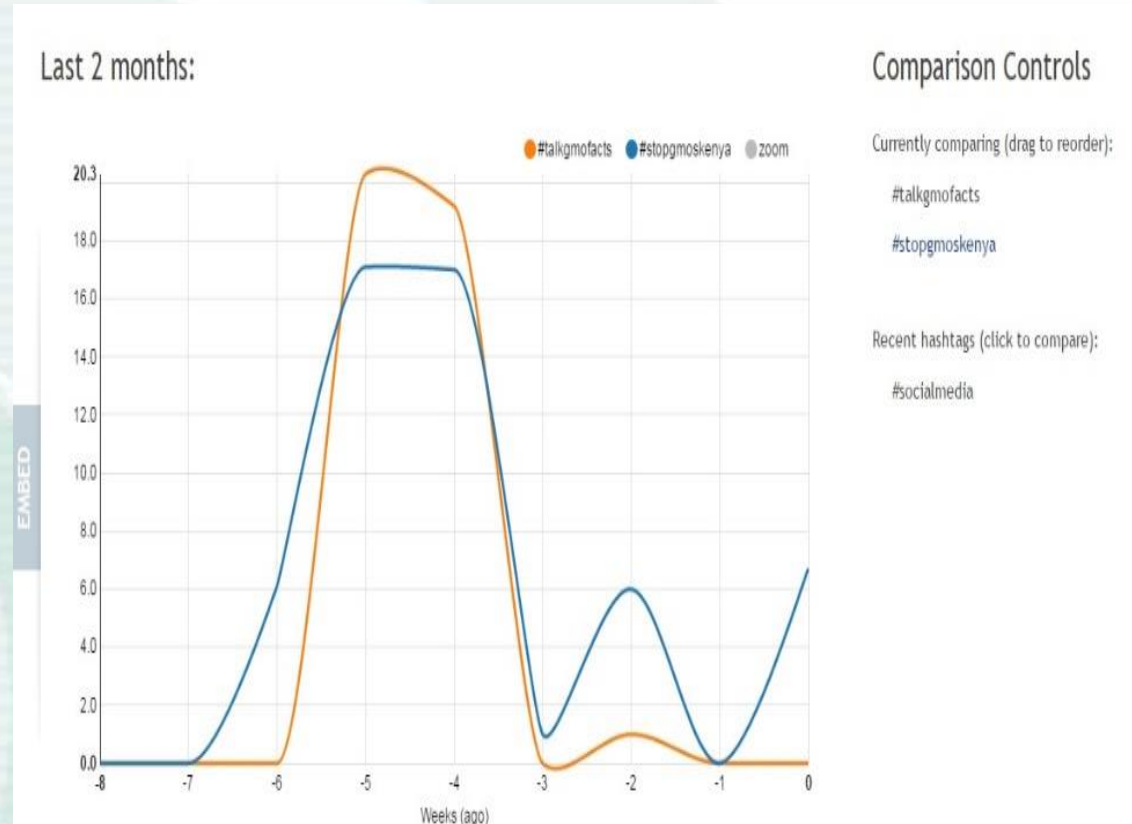
Trust and
credibility
key!

Means:

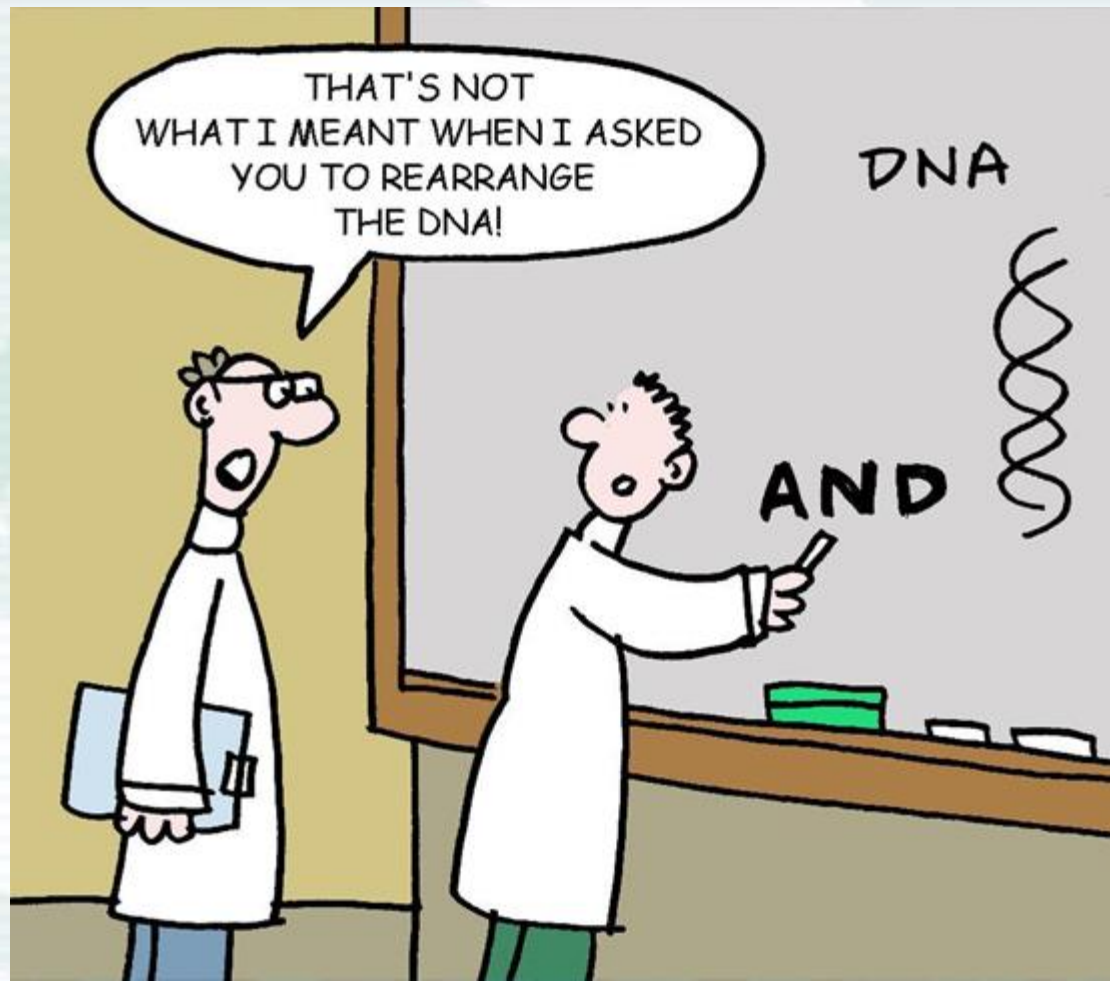
Use appropriate channels to deliver messages

Mass media
Seeing-is-believing
Biosafety study tours
Workshops
IEC materials
Social media key!

#TalkGMOFacts vs. #StopGMOsKenya



Rules for Effective Biosafety Communications



Rule 1: Effective communication must be planned

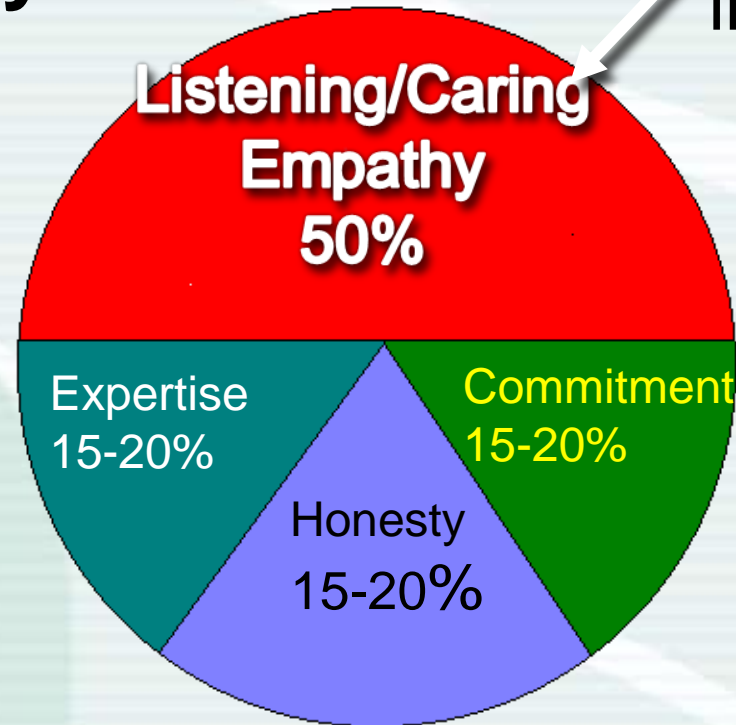
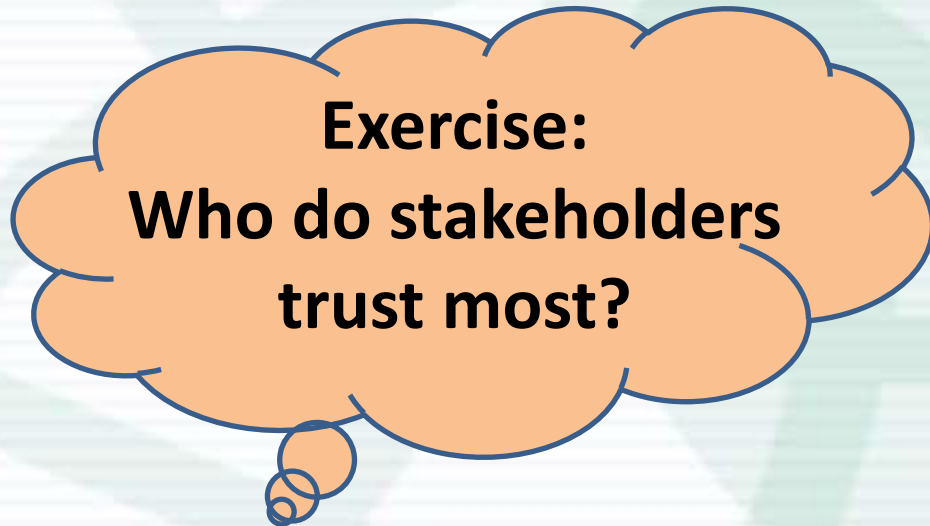


Rule 2:

Build trust and credibility

- **People want to know that YOU care before they care about what you know**
(Covello, 2001)

Assessed
in 9-30 secs.

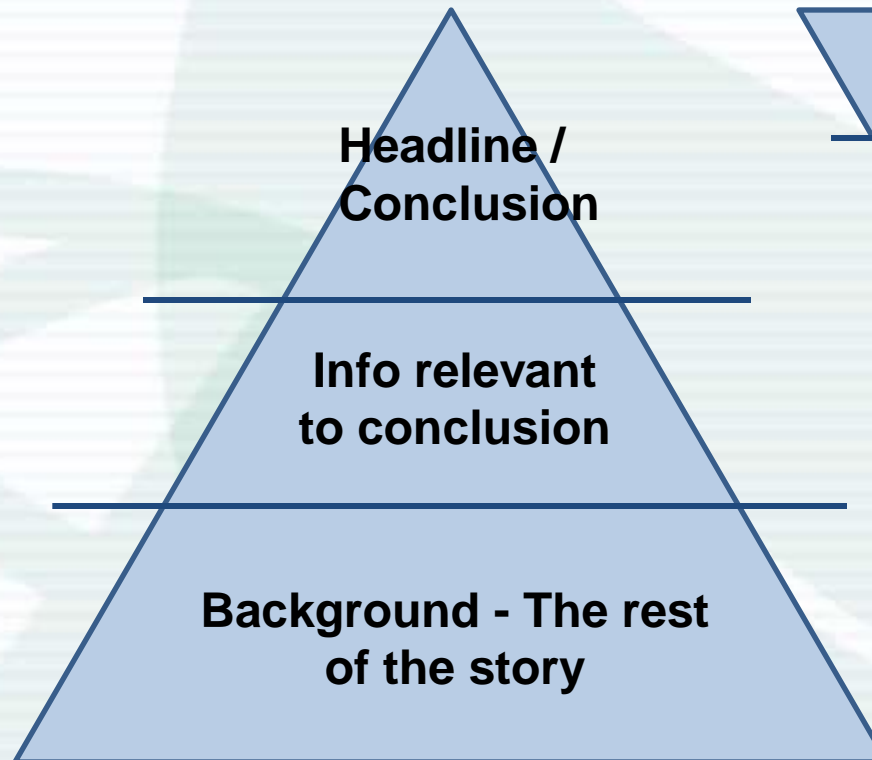


Things that will erode trust:

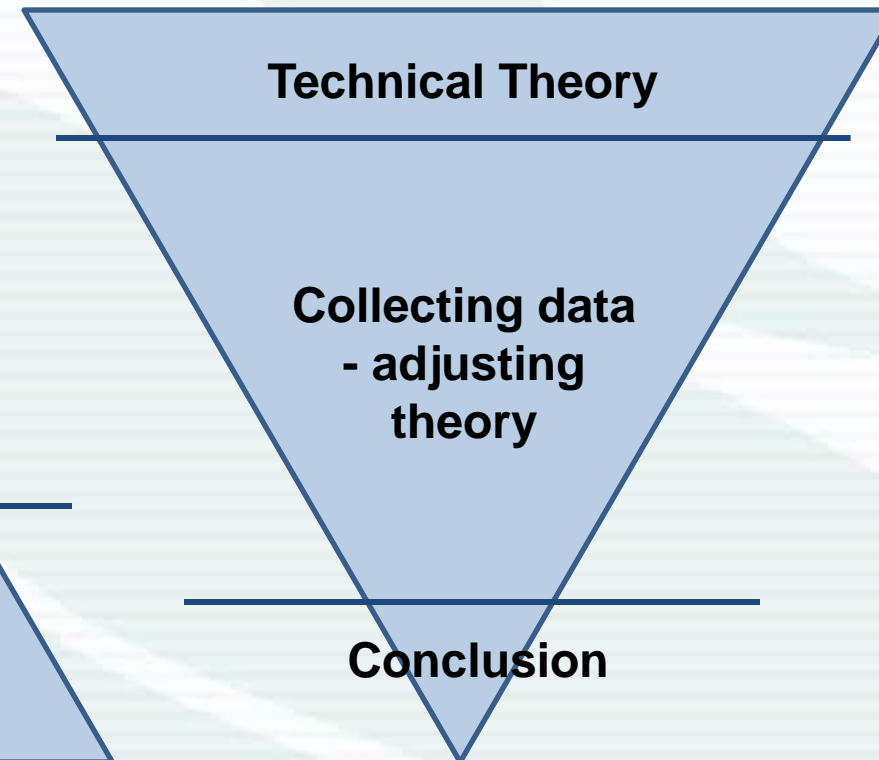
- 1. Lack of competence**
- 2. Delayed response**
- 3. Arrogance**
- 4. Adapting a defensive stance**

Rule 3: Understand the Gap

Non-Scientists



Scientists/Technical



Golden Rule!

Simplify language to suit target audience

Technical jargon	Layman's language
Gene	Hereditary information
Genome Editing	?
Gene Drives	?
Gene-edited pigs	?

Lessons from ABBC-2015 - Nairobi

(Food Evolution Movie team attended- Trace Sheehan et al..)

Upcoming ABBC-2017 in Uganda (July 18-20)

Focus: Biosafety Communications

Lesson 1 from #ABBC2015

Scientists need to be good story tellers and make their stories accessible to varied audiences



“The changing terrain of Agri-biotech Communications demands that scientists tell the new story in a way that appeals to the hearts and minds of stakeholders.”

 Dr. Mahaletchumy Arujanan
Malaysian Biotechnology Information Centre

Lesson 2 from #ABBC2015

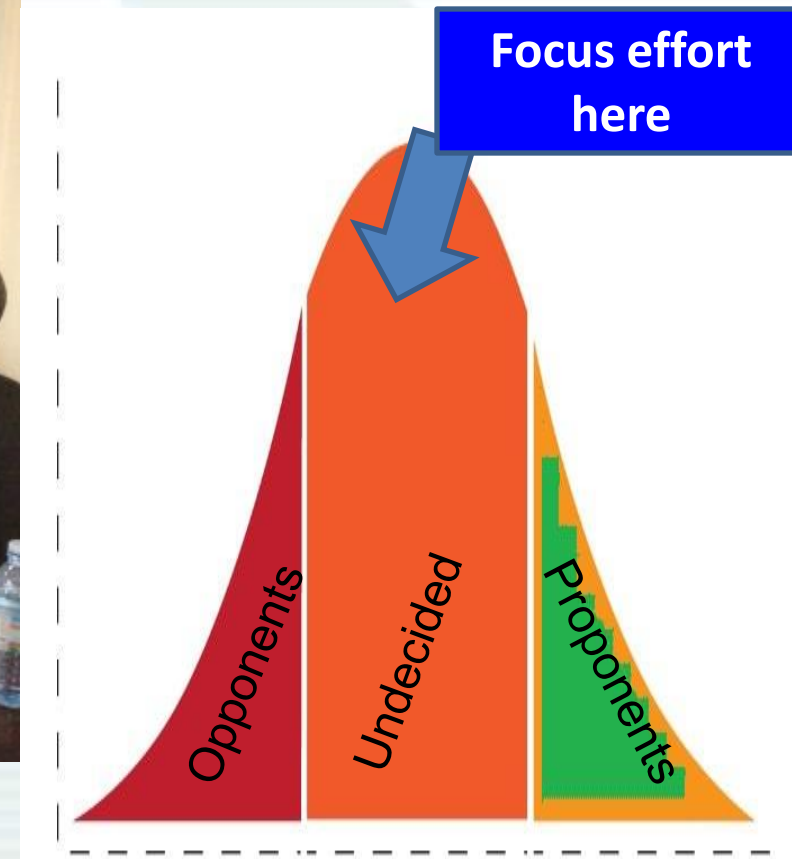
Agri-biotech and biosafety messages must be simplified and translated into local languages



How do you explain to my grandmother what GMOs are? Experts need to convey the agri-biotechnology and biosafety messages in the language of the farmer, simple and understandable - **Michael Kuria Mbugua, a farmer**

Lesson 3 from #ABBC2015

Amplifying grassroots voices



Best Practice – planned communication ***Being *proactive* than *reactive*!***

APP model

Anticipate: List all possible issues on GMOs and Biosafety

Prepare: Messengers, Message, Means (3M)

Practice: Regularly engage the public

Way Forward - Strategic Partnerships

Science Communications Service Providers

INTERNATIONAL SERVICE
FOR THE ACQUISITION
OF AGRI-BIOTECH
APPLICATIONS



BioAWARE; Universities; NARIs, RECs

ABNE
MSU



Biosafety Agencies

PBS

BecA/
ILRI

AATF/OFAB

Open to PARTNERSHIPS from
PARTICIPANTS and PARTNERS..
***Mathew 9: 37 (The Harvest is truly
abundant but the labourers are few)***