

Grand Challenges:experience from an African grantee



Abdoulaye DIABATE
IRSS/Centre Muraz, Bobo-Dsso, Burkina Faso



Grand Challenges Exploration Round 6



Table of Contents

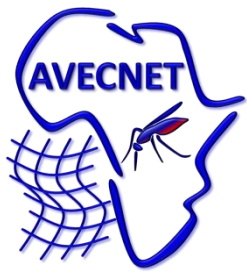
EXECUTIVE SUMMARY	II
1. INTRODUCTION	1
1.1 Grand Challenges Canada	1
1.2 Background.....	1
2. APPROACH	3
2.1 Program Goal	3
2.2 Program Scope.....	3
2.3 Size and Length of Grants	4
3. ACTIVITIES AND DELIVERABLES	5
4. RULES AND GUIDELINES	6
4.1 Eligibility Criteria	6
4.2 Application Instructions.....	6
4.3 Review Process	7
4.4 Application Schedule	7
4.5 Evaluation Criteria	8
4.6 Allowable Costs	9
4.7 Privacy Notice.....	10
4.8 Warranty	10
4.9 Intellectual Property	11
4.10 Data Access.....	11
4.11 Nature of this Program.....	12
5. RESEARCH ASSURANCES	13

Evaluation Criteria

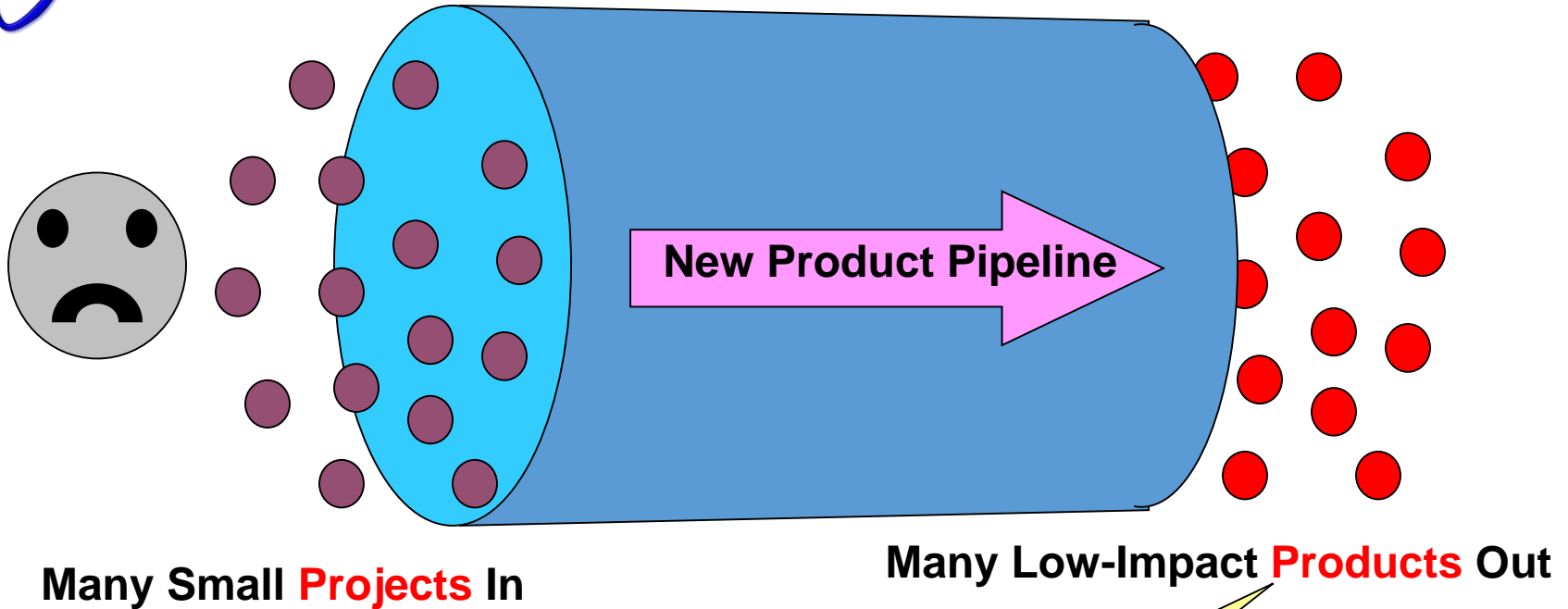
- **Boldness and creativity**
- **Integrated innovation**
- **Global Health impact**
- **Technical merit/Executive plan**
- **Scaling up and sustainability**
- **Investigator potential**
- **Early career innovators**

Grand Challenges Approach

- *A grand challenge is one or more specific critical barrier(s) that, if removed, would help solve an important health problem in the developing world with a high likelihood of global impact through widespread implementation*
- *Support the **best minds** in the world as they search for **breakthroughs in global health** and other areas that have the potential to bring about **enduring changes in the lives of the millions of people in poor countries.***

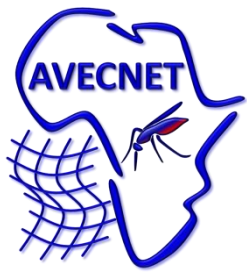


What's the **MAIN** Problem We Are Trying To Solve?

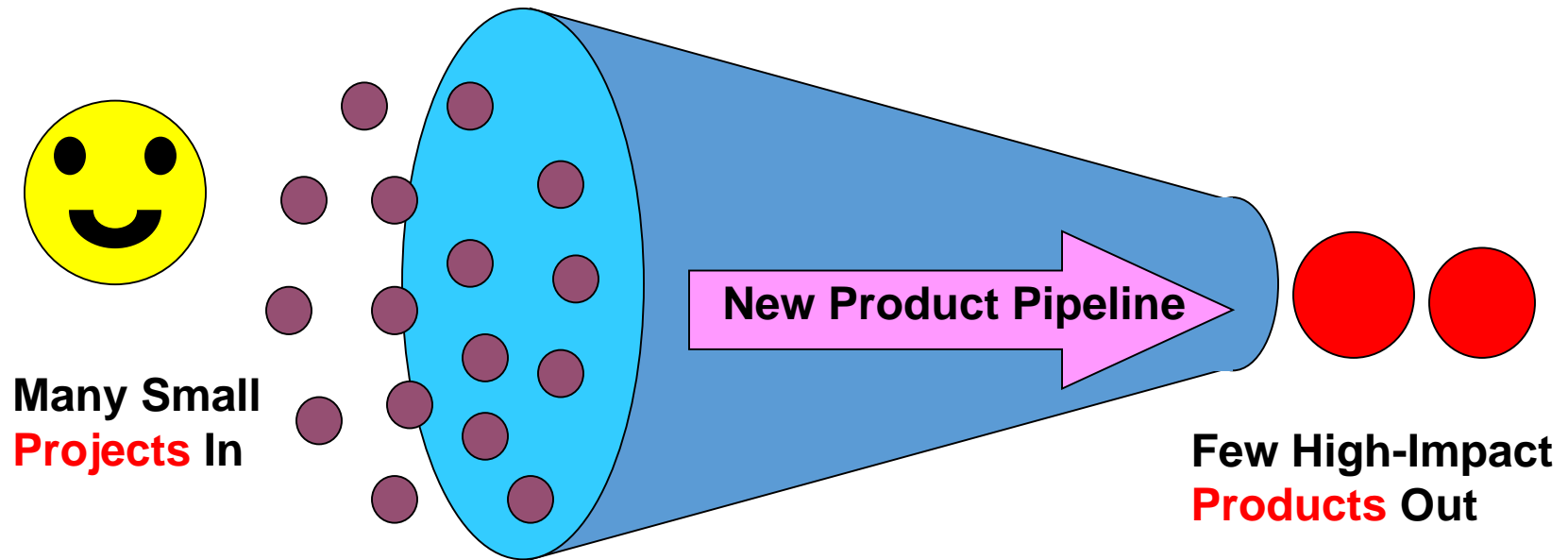


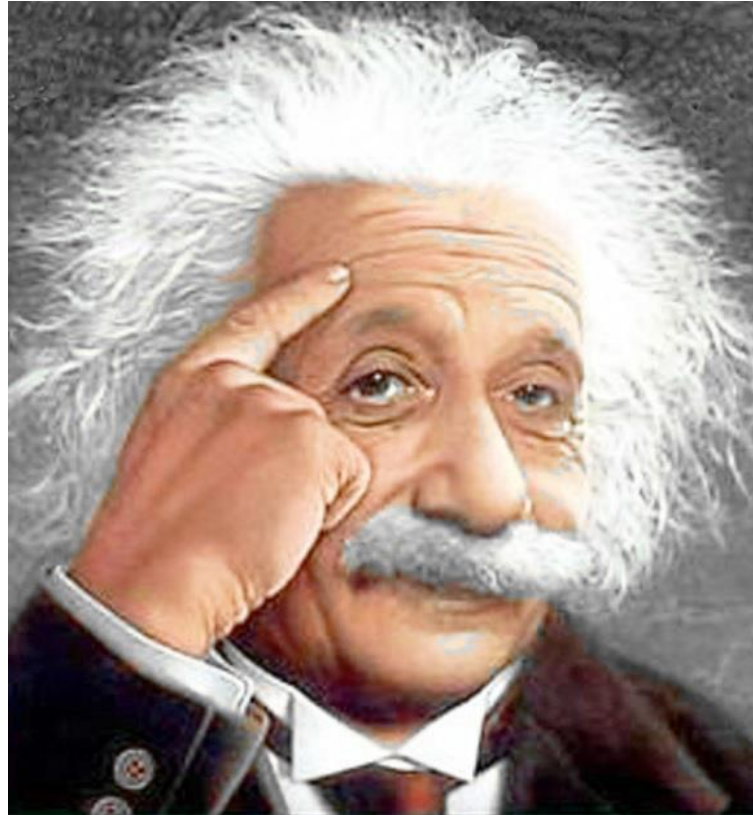
Before: Difficult to **manage** many small projects.

After: Difficult to **support** many small products.



What's do we want to have?

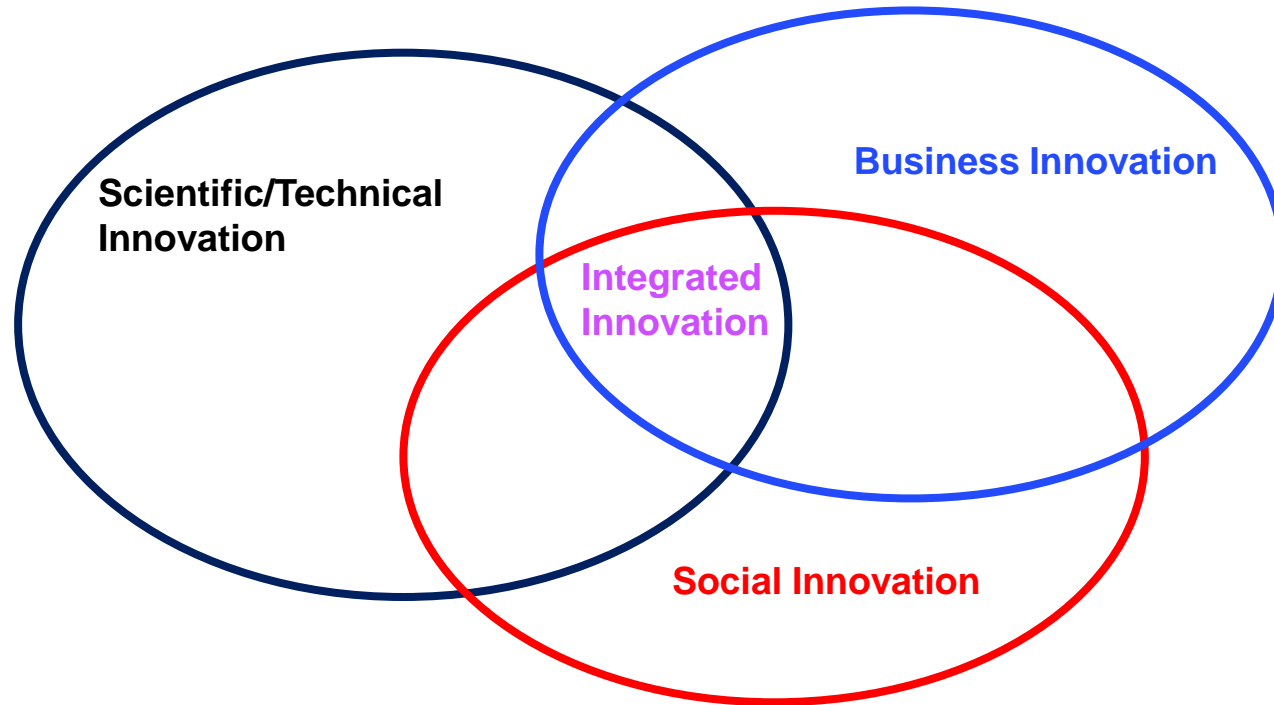




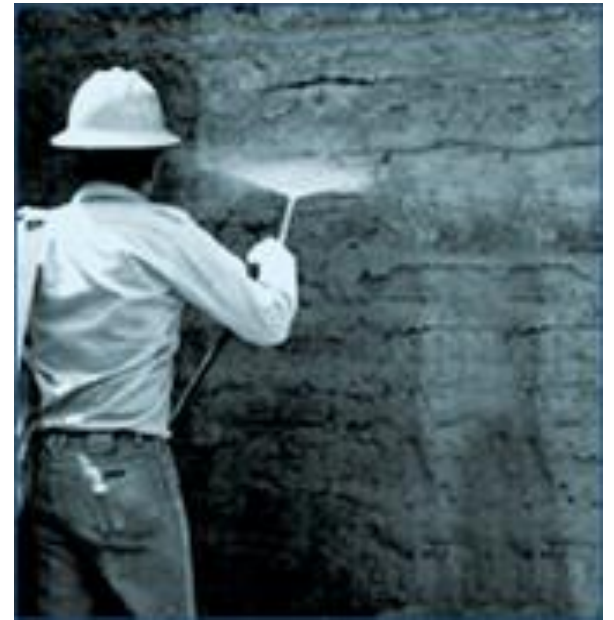
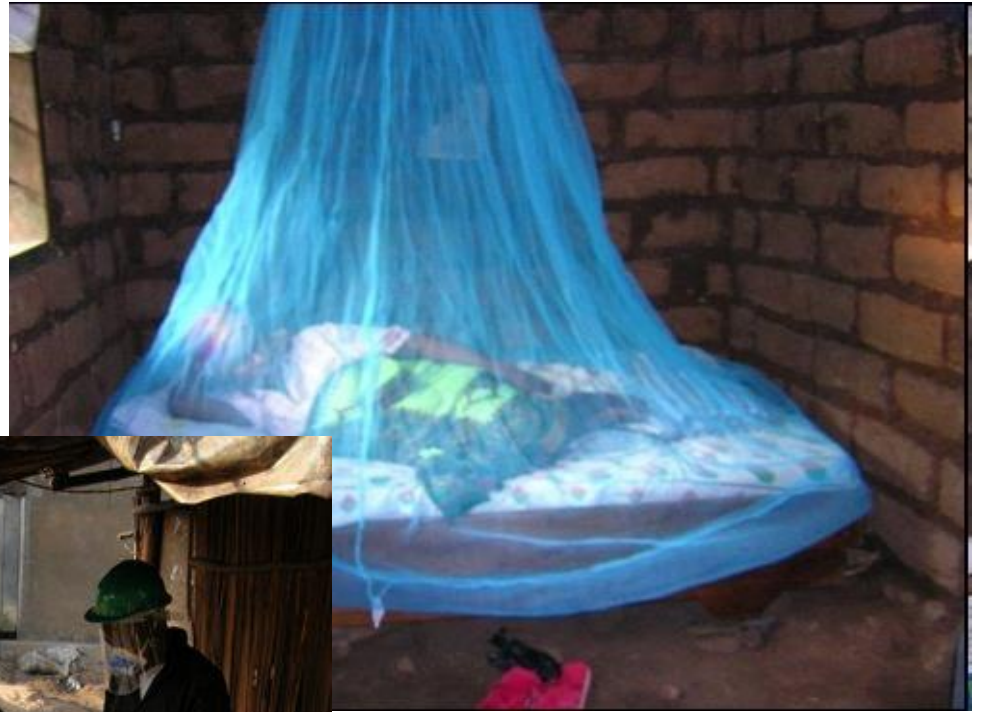
Mindmeister.com

Think:
Bold ideas - **Big** impact - **Better** world

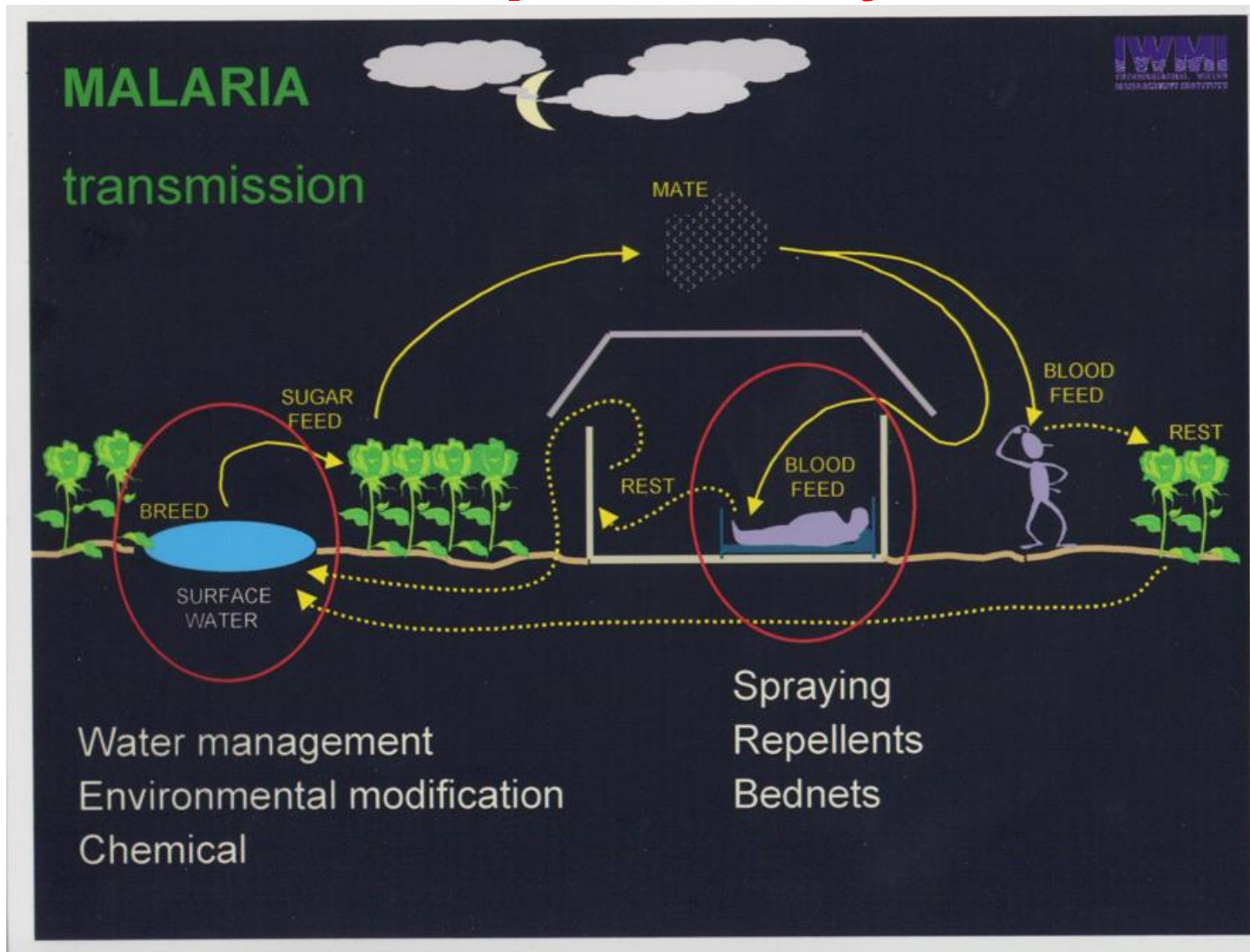
Integrated Innovation™



Integrated Innovation is the coordinated application of scientific/technological, social and business innovation to develop solutions to complex challenges.



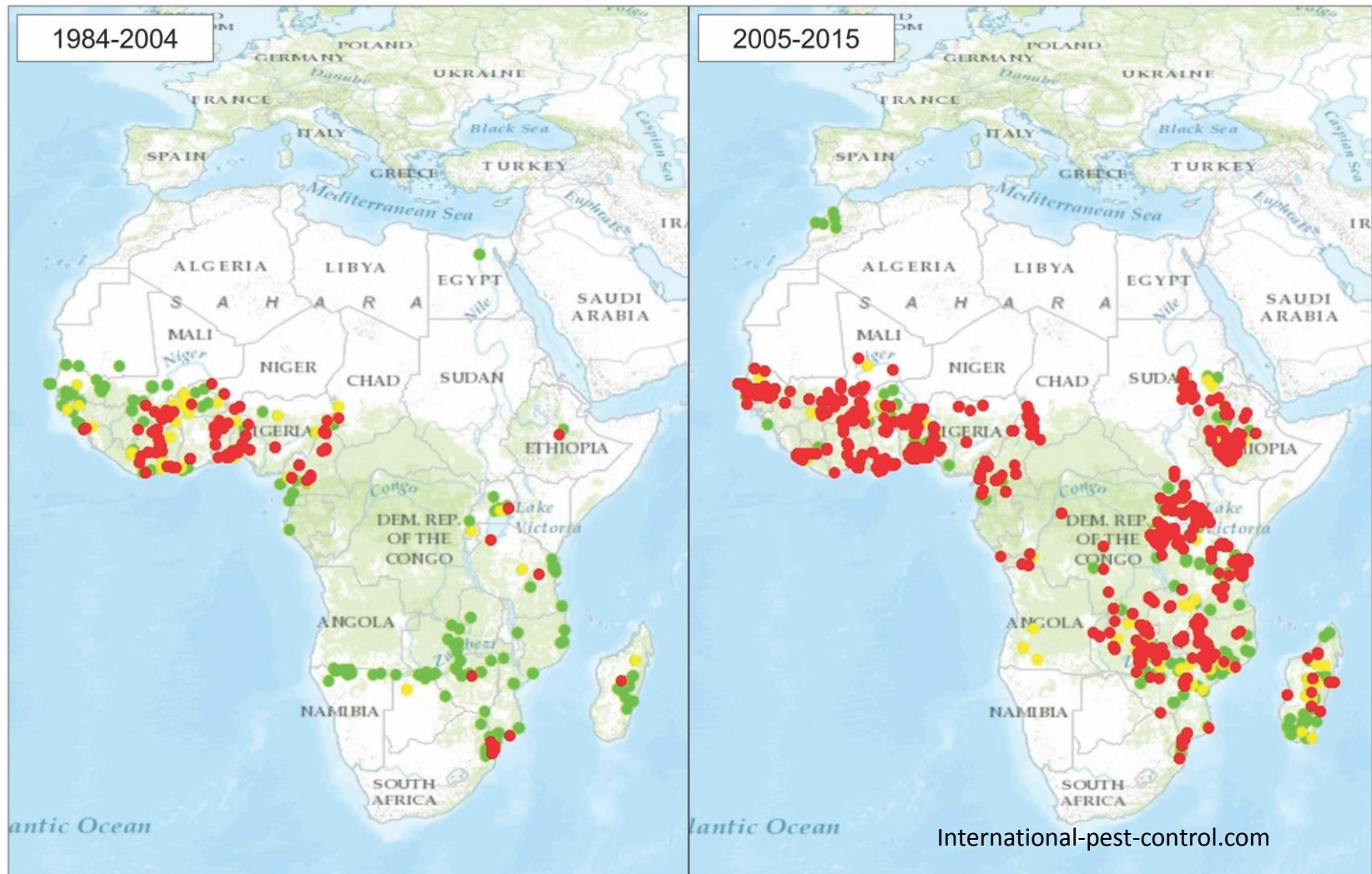
Mosquito life cycle

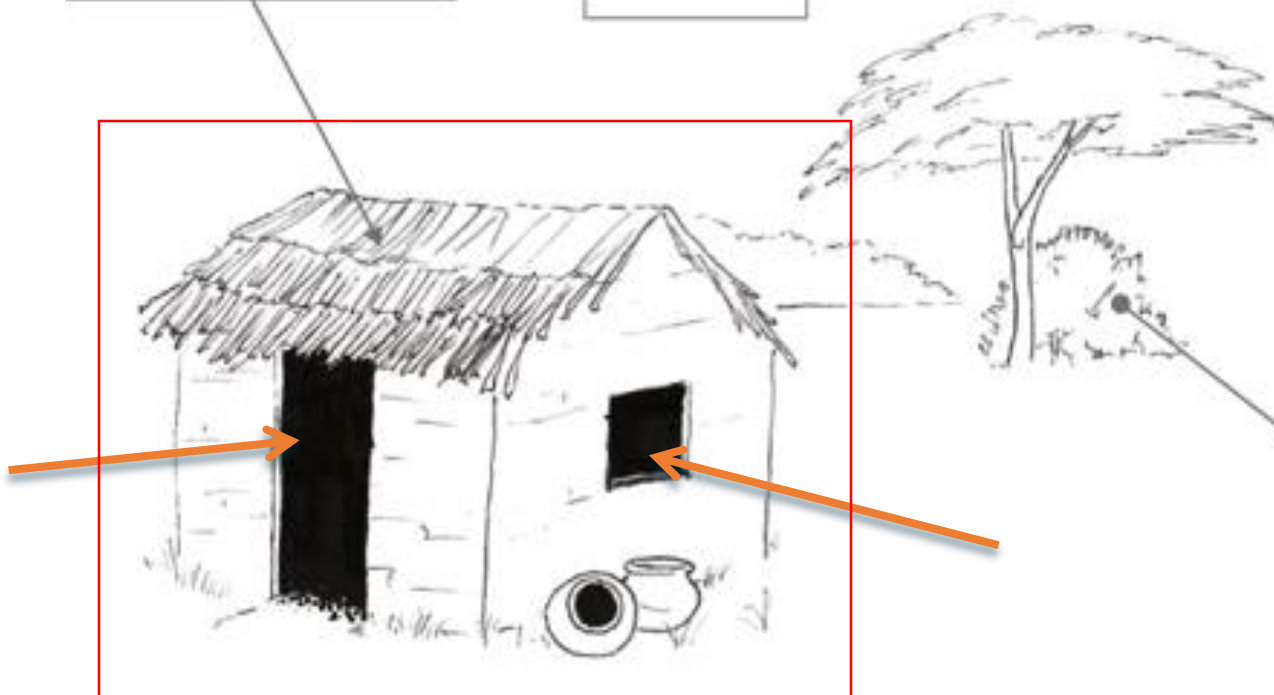
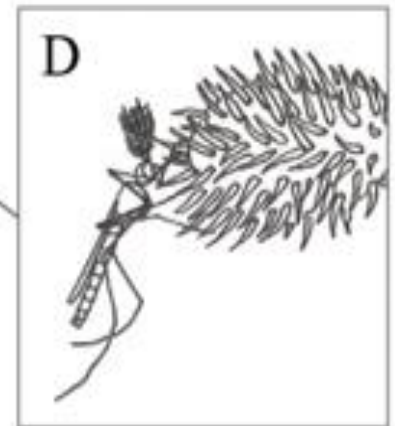
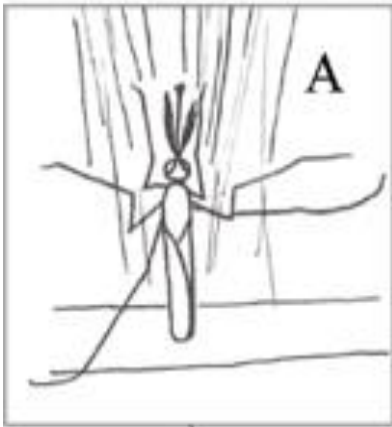


Mosquito control



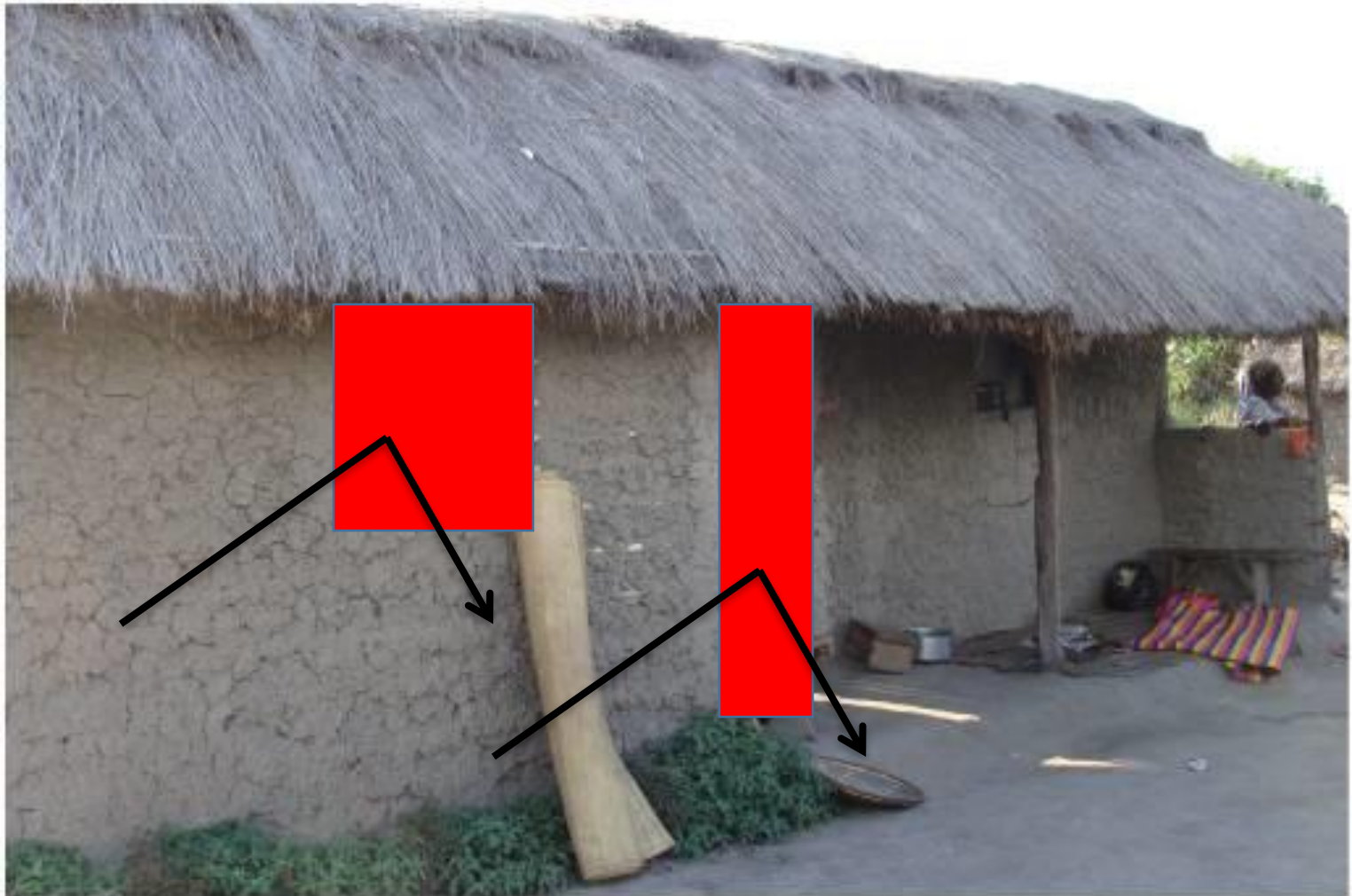
Evolution de la résistance aux insecticides





Entry points of blood or refuges seeking mosquitoes

Screen the entry points and deny access to houses





Curtain blocking the door



Trap at the window, inside view



Trap at the window, outside view

The Lehmann's trap

The Challenge

Diabaté et al. *Malaria Journal* 2013, **12**:196
<http://www.malariajournal.com/content/12/1/196>



METHODOLOGY

Open Access

Environmentally friendly tool to control mosquito populations without risk of insecticide resistance: the Lehmann's funnel entry trap

Abdoulaye Diabaté^{1*}, Etienne Bilgo¹, Roch K Dabiré¹ and Frédéric Tripet²



Curtain blocking the door



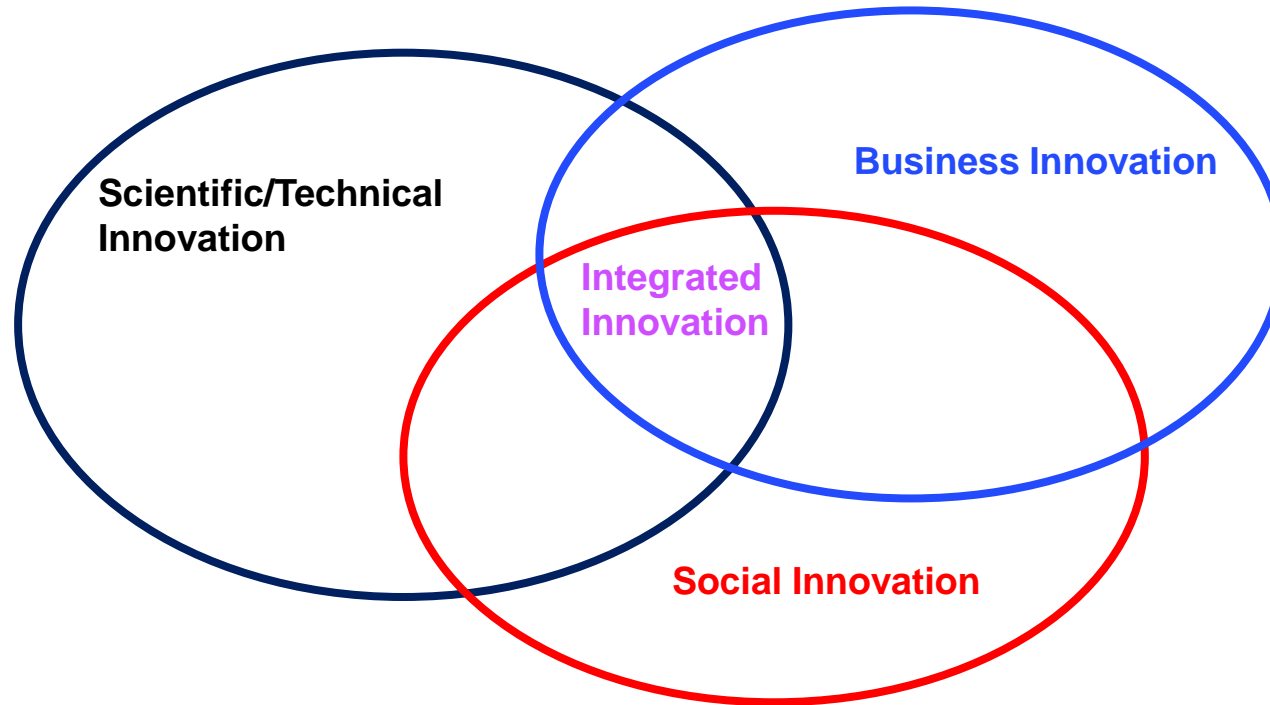
Trap at the window, inside view



Trap at the window, outside view

The Lehmann's trap

Integrated Innovation™



Integrated Innovation is the coordinated application of scientific/technological, social and business innovation to develop solutions to complex challenges.

Bold Ideas - Big Impact - A Better World

Build a multidisciplinary team



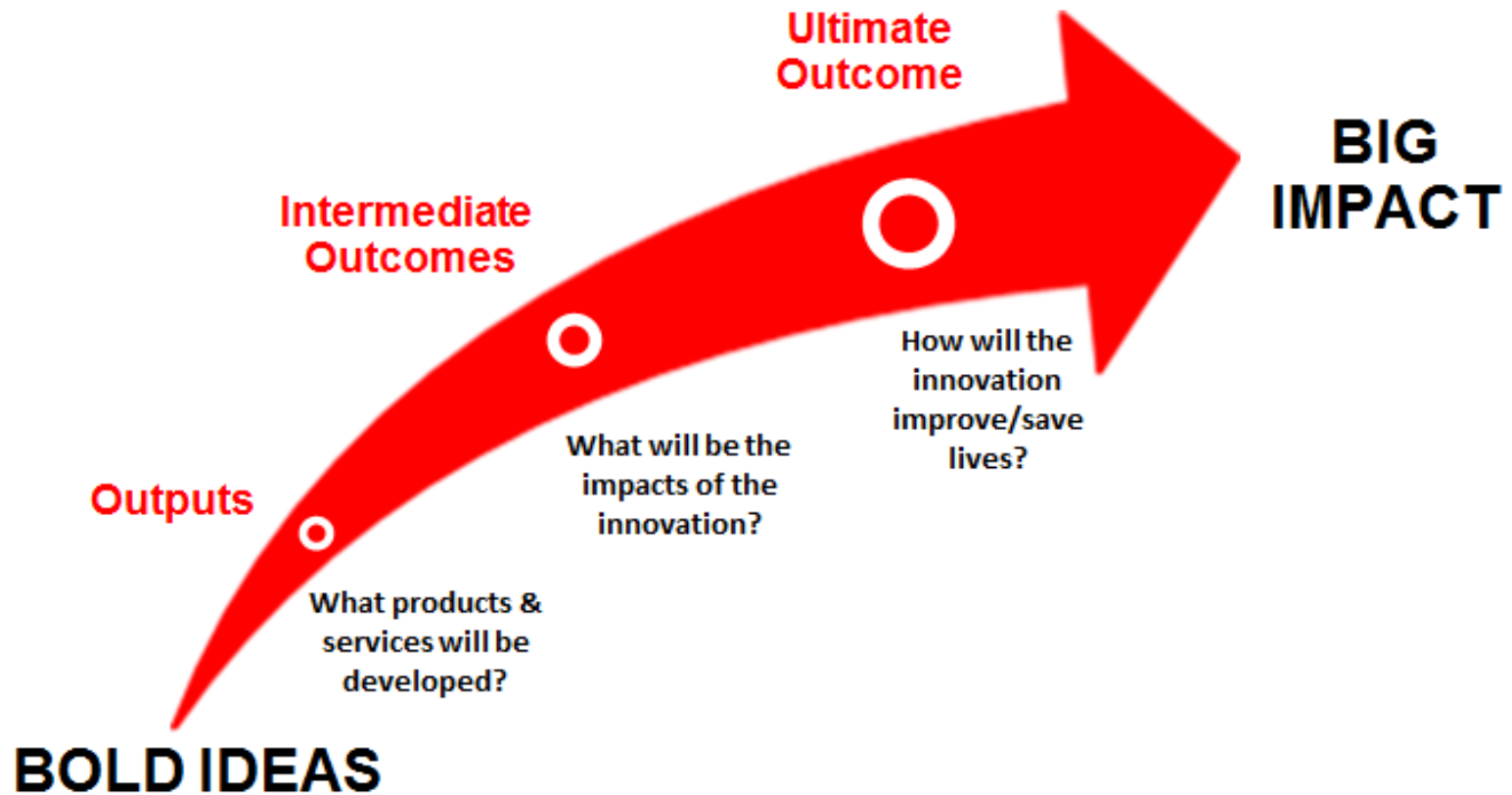
Vector ecologists
Social Scientist
Metalurgist
Business Innovator



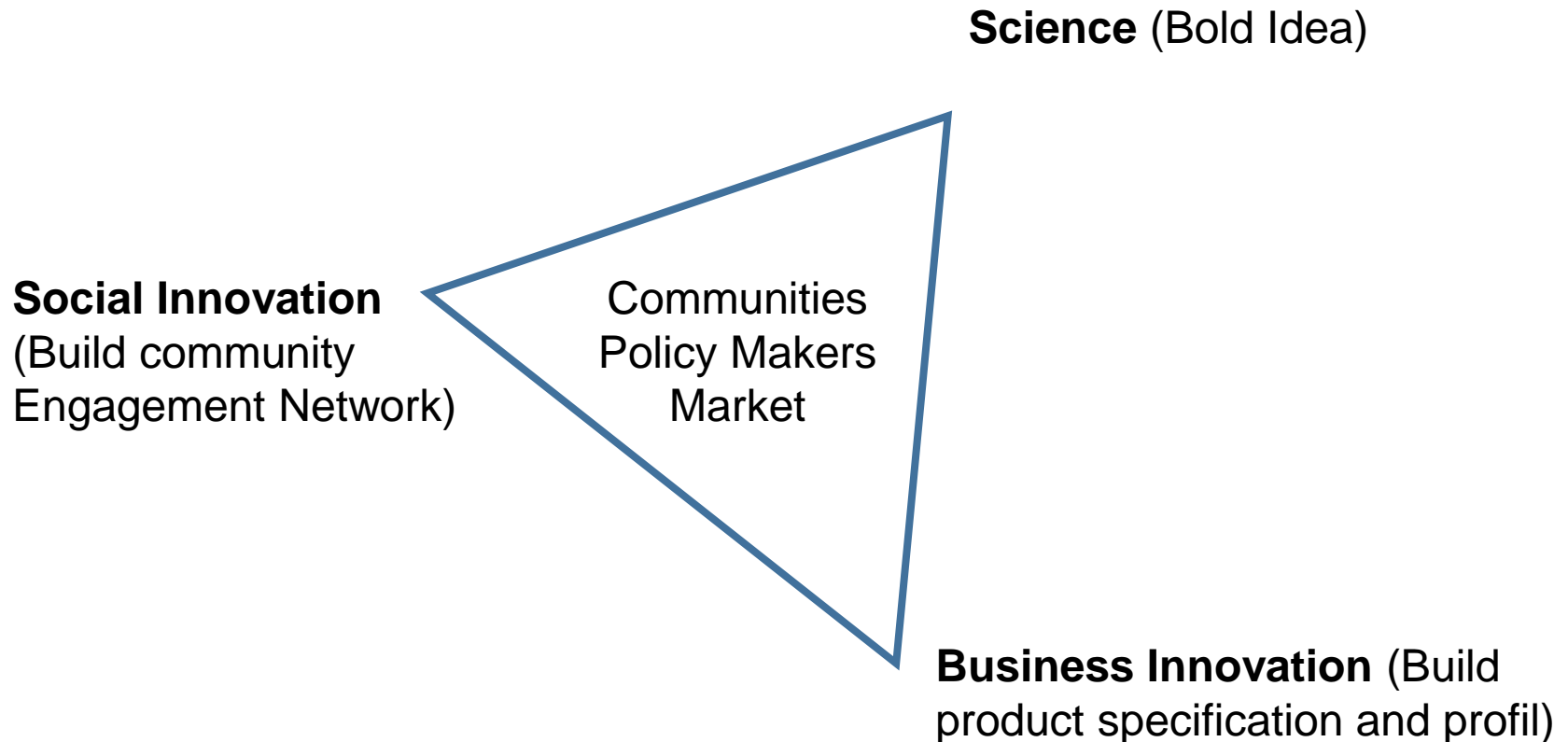
Faire la difference



Design Thinking



Design Thinking



Tim and Eliane's « 5Cs » for effective grant writing

- **Context:** identify with interests of funding agency and potential reviewers for your grant proposal
- **Competent:** Make sure you know the facts
- **Coherent:** well organized, linked together
- **Concise:** focus on what is important; avoid the trivial
- **Compelling:** make the grant reviewers/funding agency team want to read your whole proposal

Tips from Reviewers

- **Innovation**
- **Responsiveness of the Proposal**
- **Testability of the Idea**
- **Feasibility of the Project**
- **Potential for Increased Funding**
- **Clarity**

1. Describe and quantify the global health problem you will address.

On World Malaria Day, April 22, 2013, the World Health Organization estimated that there are 219 million cases of malaria around the world each year, 660,000 deaths from malaria each year, mostly in children under five years of age, and that almost 70% of deaths globally occur in the 10 highest burden countries, including Burkina Faso, where this project is based.

2. Indicate in one or two sentences what your bold idea is and how it will solve the global health problem that you identified. (This information will be made public)

Control the malaria vector without the risk of insecticide resistance using an environmentally-friendly technology that can be easily and broadly

<http://applications.grandchallenges.ca/en/preview>

Page 3 of 6

Your Application Preview

2013-07-30 2:54 PM

manufactured.

3. Why is your idea unconventional or creative? How is it an improvement over current approaches? How is it different from previously funded Grand Challenges projects found at <http://www.grandchallenges.ca/our-grantees/>. (Please note that proposals very similar to previously funded proposals will not be viewed favourably.)

Two GCC malaria projects have some similarities to our proposal: (1) Outdoor mosquito control as a complementary strategy to accelerate malaria elimination in Africa (Fredros Okumu, Tanzania); and (2) House design modification for malaria free houses (Harrysone Atieli, Kenya). This proposal differs in three main ways. 1. The Lehmann Trap needs no chemicals and has reduced indoor mosquito densities by up to 80%. 2. The trap combines the functions of the other projects, i.e., it kills mosquitoes and blocks entry into houses. 3. We focus on improving the trap design for improved performance and end-user acceptability, and standardized product specifications to enable broad manufacturing.

Une proposition
visant à compléter
l'innovation intégrée
du piège Lehmann
afin de réduire le
paludisme

Le titre devrait résumer l'objectif global et introduire la principale innovation technologique, mais l'idée principale derrière ce projet Grands Défis Canada est INTEGRATED INNOVATION de façon explicite à identifier le travail proposé comme un processus dont il est la meilleure façon de répondre au programme





Quelques constats

- You never try, you will never succeed: Life is a long process of learning and we all get better by building up better cases on our previous failures.
- Appearance matters:
- Not because you say a lot that you say more: be short, focus and clear- say more with less
- There is a big difference between being opaque and being deep: keep it simple
- Narcissic effects





Thank You for your attention!!!!