

Science communication | Disrupting the norms

By Sören Bauer

Structure of today's session

1. Introduction & “communication” brainstorming (30 min)
2. Group work on “message box” (30 – 45 min)
3. Five Message box interviews / presentations (30 min)
4. Feedback & discussion round (30 min)

Objectives of today's session

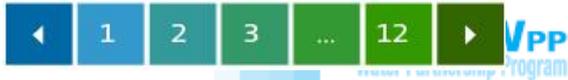
1. To encourage thinking and learning about diverse audiences
2. To learn about our opinions and approaches to communication
3. To support the development of messages and the “so what?” for pre-defined audiences

1. Introduction

About me - who I am and what I/we do

PRINCIPLES ON WATER GOVERNANCE

WaterComm



Water Sector Governance in Africa



Water Sector Governance
in Africa

Volume 1
Theory
and Practice

thirsty energy

energy
and water's
interdependence

energy needs
water
Energy production
processes require
water

- hydropower
- thermoelectric cooling
- power plant operations
- fuel extraction and refining
- fuel production

water needs
energy

Water production, processing,
distribution, and end-use require
energy

- extraction
- treatment
- transportation



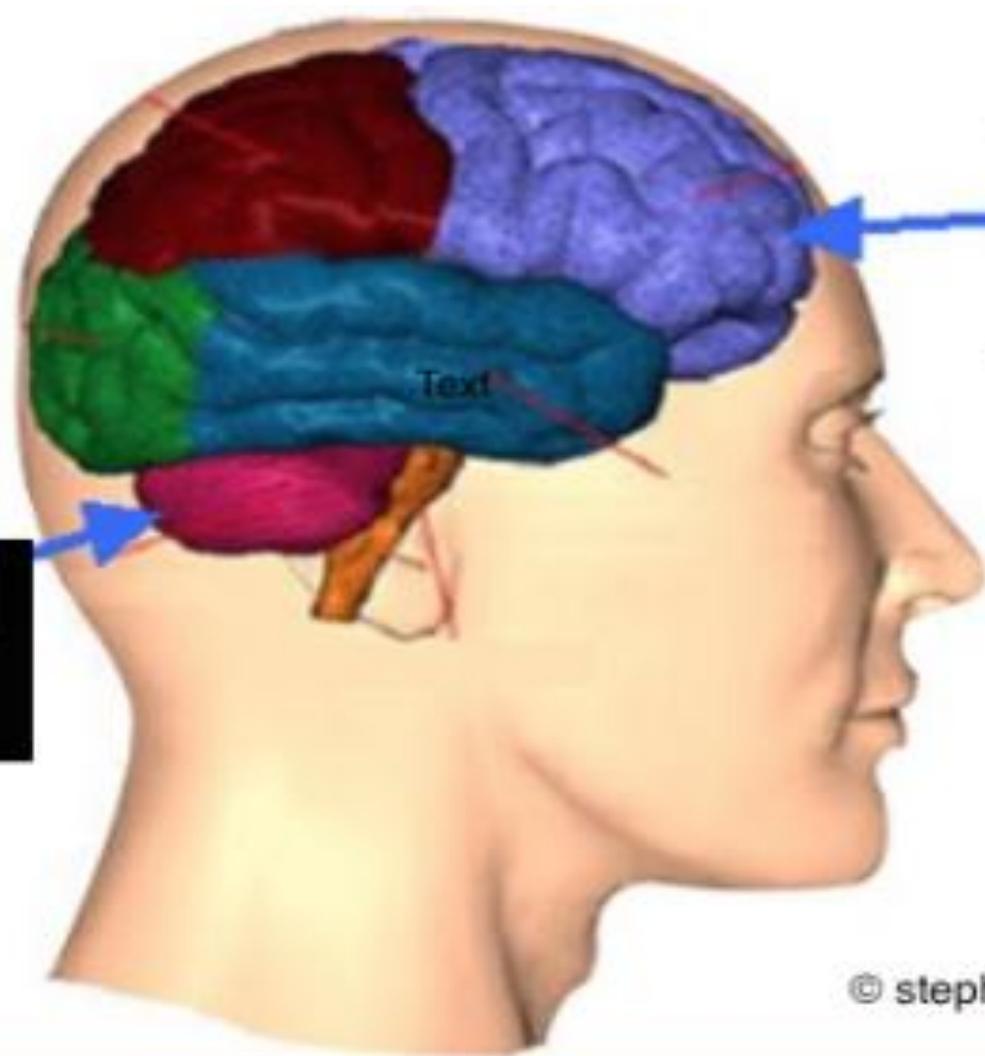
EIP Water

Boosting opportunities – Innovating water

Volume 2
Assessment
Guidelines

Who remembers the image of Mexico that Cesar showed in his presentation yesterday?

Why is that?



Thinking
Brain

Rational
Thinking
Logical

Slow
5x weaker

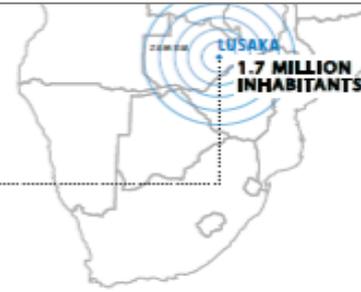
Fast
5x more
powerful

Emotional
Brain

Irrational
Emotional
Illogical

Visuals address and engage a different part of the human brain: our emotional brain.

Strong and powerful visuals and infographics do not necessarily aim to “convince” the viewer; rather, they aim to simplify, focus on the essentials and touch the viewer emotionally.



What's wrong with Lusaka's groundwater?

Cause

The 5 Main Causes of Groundwater Pollution In Lusaka

<p>Lack of sewer network</p>	<p>Lack of sanitation and/or improper sanitation technologies</p>
<p>Poor solid waste management</p>	<p>Sub-optimal planning and land allocation</p>
<p>Improper crude oil management and leaking underground petrol tanks</p>	

Effect

The Effects of Groundwater Pollution In Lusaka

Public Sector	Private Sector	Civil Society
<ul style="list-style-type: none"> ● Increase in costs related to waste management ● Costs in rehabilitating polluted groundwater ● Costs incurred from revising land-use and allocation ● Reputational damage from perception of inability to provide services 	<ul style="list-style-type: none"> ● Cost increase related to treating polluted groundwater ● Costs increase in hauling water ● Insufficient water supply to maintain operations ● Loss of market due to perception of water utilized being polluted 	<ul style="list-style-type: none"> ● Increased costs of treating diseases related to polluted groundwater ● Reduction in quality of life due to health risks ● Insufficient water supply

What's the Next Step?

With the aim to tailor activities under a collaborative approach, a multi-sector partnership needs to be conceptualized and formalized.



Sectors more problematic categories in dealing with groundwater pollution

Resource Mobilization, Finances	Policy, Legislation, Regulation
Organizational Structure	Water & Sanitation, Solid Waste Management, Urban Environment
	Community Approach

Sectors less problematic categories in dealing with groundwater pollution

Skills, Knowledge, Technology	Education, Training, Awareness
	Community, Social Norms
	City-level Quality Monitoring

WATCH THIS SPACE. INFOGRAPHICS ARE **IN**

100% OF BUSINESSES CAN BENEFIT
EVERYONE SHOULD CONSIDER THE POTENTIAL ADVANTAGES **RIGHT NOW**

INFOGRAPHIC PRODUCTION INCREASES BY **1%** EVERY DAY

THEY SHOW AN **EXPERT** UNDERSTANDING OF A SUBJECT AREA OR TOPIC

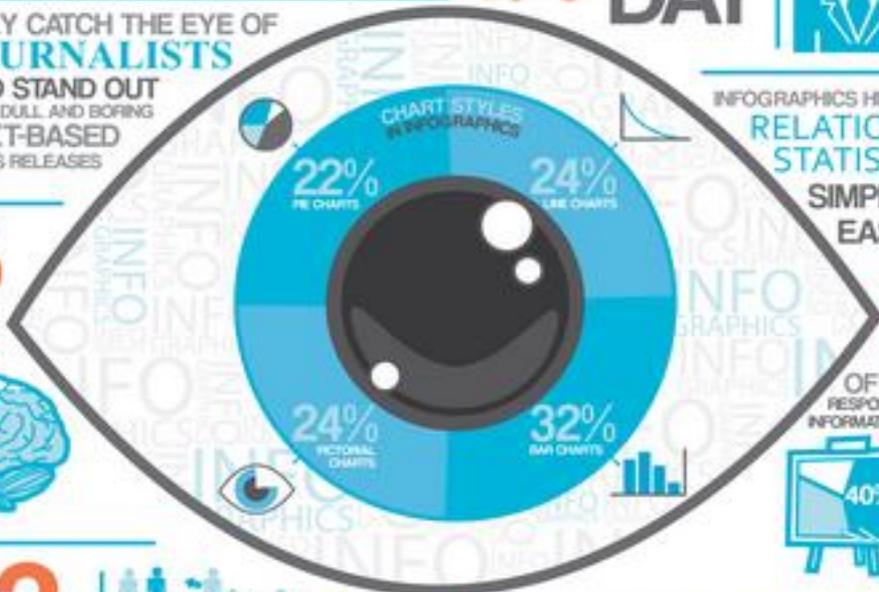
THEY CATCH THE EYE OF **JOURNALISTS** AND STAND OUT FROM DULL AND BORING TEXT-BASED PRESS RELEASES

90% OF INFORMATION THAT COMES TO THE BRAIN IS **VISUAL**

INFOGRAPHICS HELP TO VISUALISE **RELATIONSHIPS & STATISTICS** SIMPLY & EASILY

40% OF PEOPLE WILL RESPOND BETTER TO VISUAL INFORMATION THAN PLAIN TEXT

- VISUAL LEARNERS
- AUDIO LEARNERS
- TACTILE LEARNERS



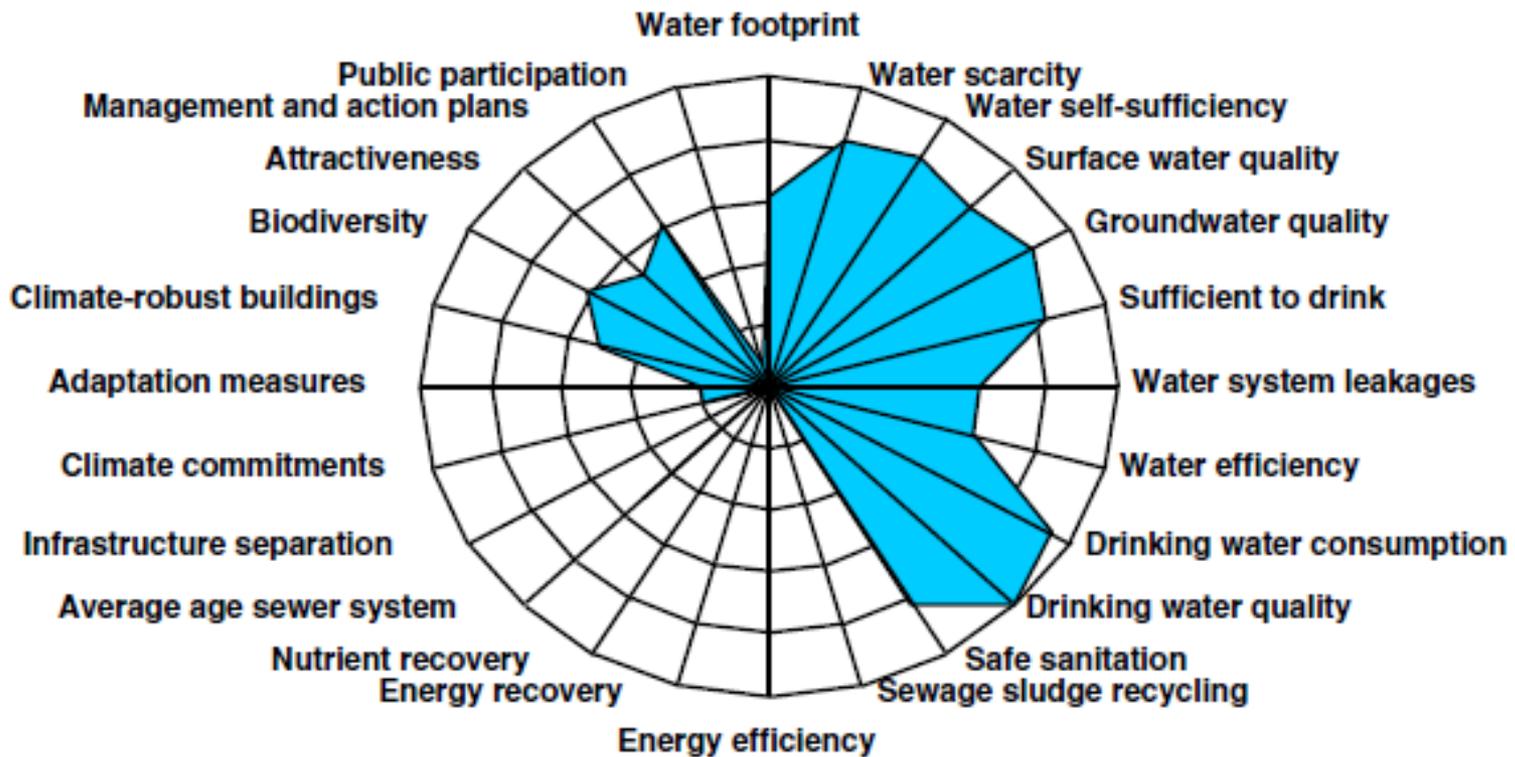
≈13 MILLION RESULTS FOR THE TERM 'INFOGRAPHIC' ON GOOGLE

INFOGRAPHICS **GO VIRAL**

INFO INFO GRAPHIC OF **GRAPHICS**

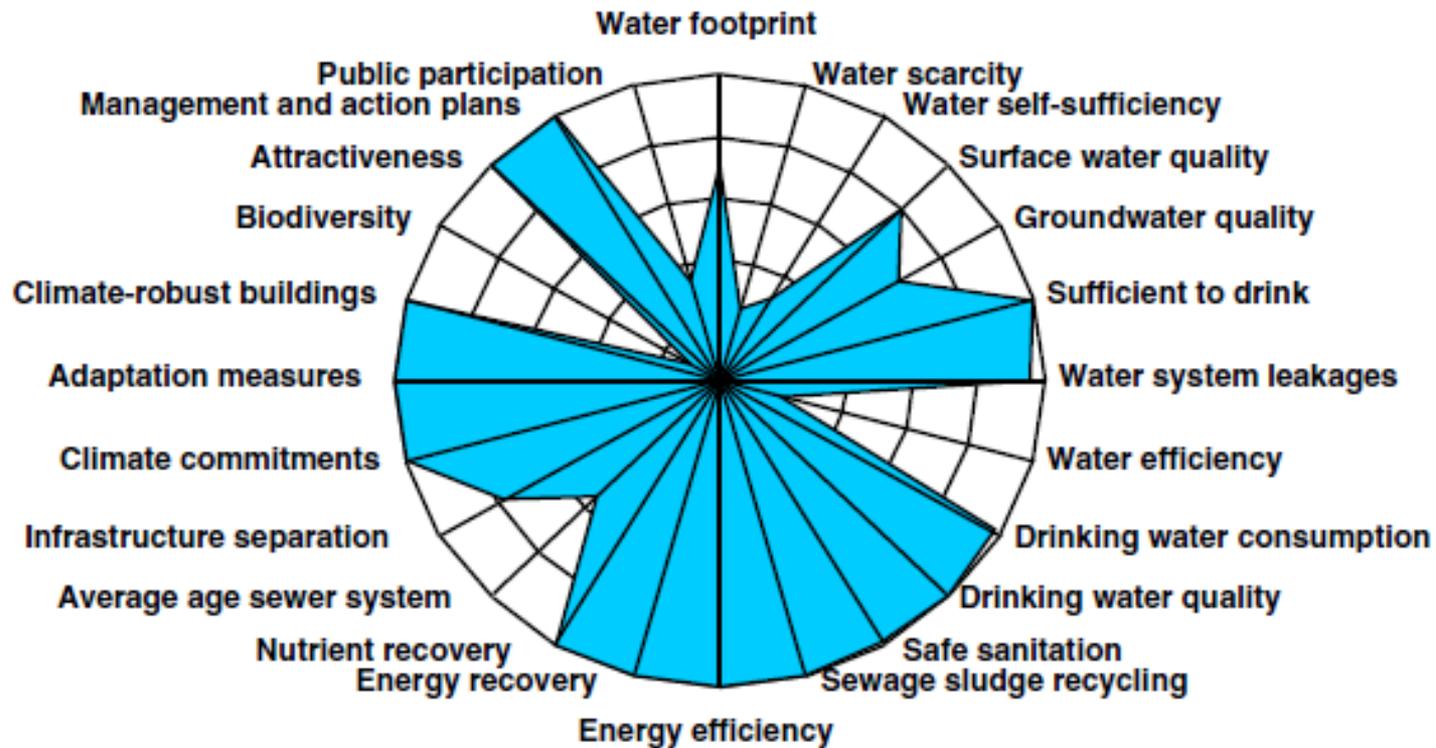
City Blueprints: Baseline Assessments of Sustainable Water Management in Cities

Bucharest (5.18)



City Blueprints: Baseline Assessments of Sustainable Water Management in Cities

Hamburg (7.72)



2. (Science) communication

Introduction & common brainstorming

Bridging the Science-to-Society Gap: Part 1

“Scientists, after all, are the people paid to produce and collect the knowledge that is relevant to the world.

In that context, scientists must move beyond the old model of reporting research just in specialized scientific articles, in language comprehensible only to others in their research specialty.

This means that our jobs are not over when our articles are published in peer-reviewed journals.”

Bridging the Science-to-Society Gap: Part 1

“I think a minimally adequate conception of ‘science communication’ needs to be specific and needs to recognize that communication is about conversation, not lecturing.”

Dan Hicks on Nature [blog](#)

What is communication anyway?

Selection of input from brainstorming with the group –

Guiding questions:

- 1. Which key words / connotations come to your mind when talking about communication?*
- 2. How do you use “communication” in your daily work?*
- 3. What do you know about communication theory? And (how do) you apply this in practice?*

3. Group work (30 – 45 min)

How “the message box” can help you think about your audiences & how to address them

(For teams of 4 or 5)

Introducing the message box I

The message box is a deceptively simple tool that helps you sift through the mountain of information in your mind and focus on the few key messages that will be most salient for your audience.

It helps you to prioritize the most important information and figure out how to effectively deliver it.

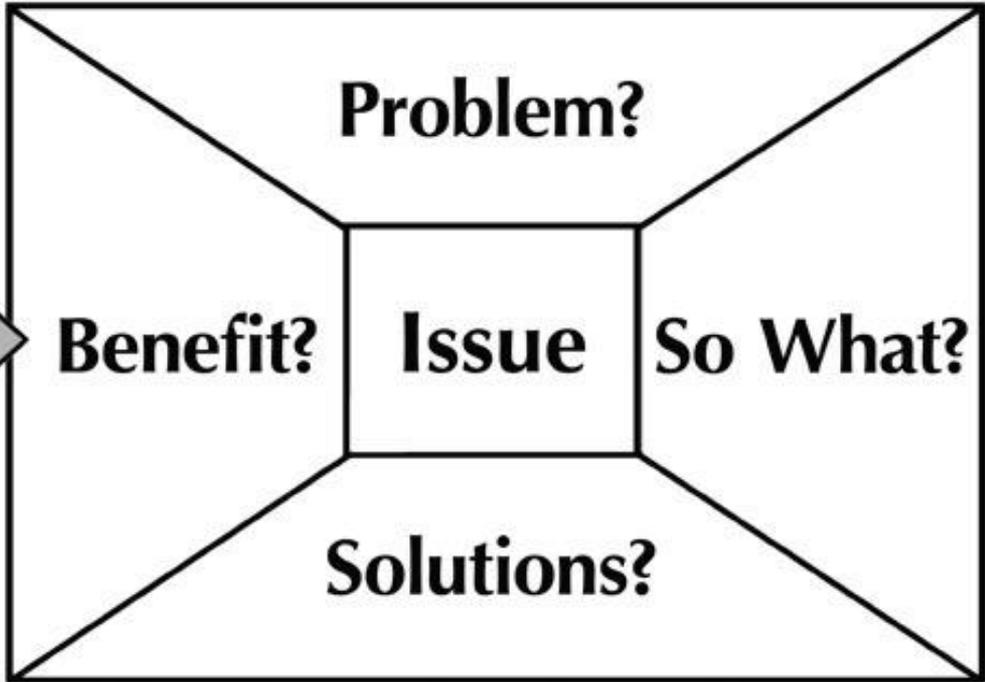
The Message Box is a communications technique that was developed by [COMPASS](#), a fantastic organization that provides communication training to scientists.

Introducing the message box II

The message box consists of a central issue connected to four quadrants, each containing a question.

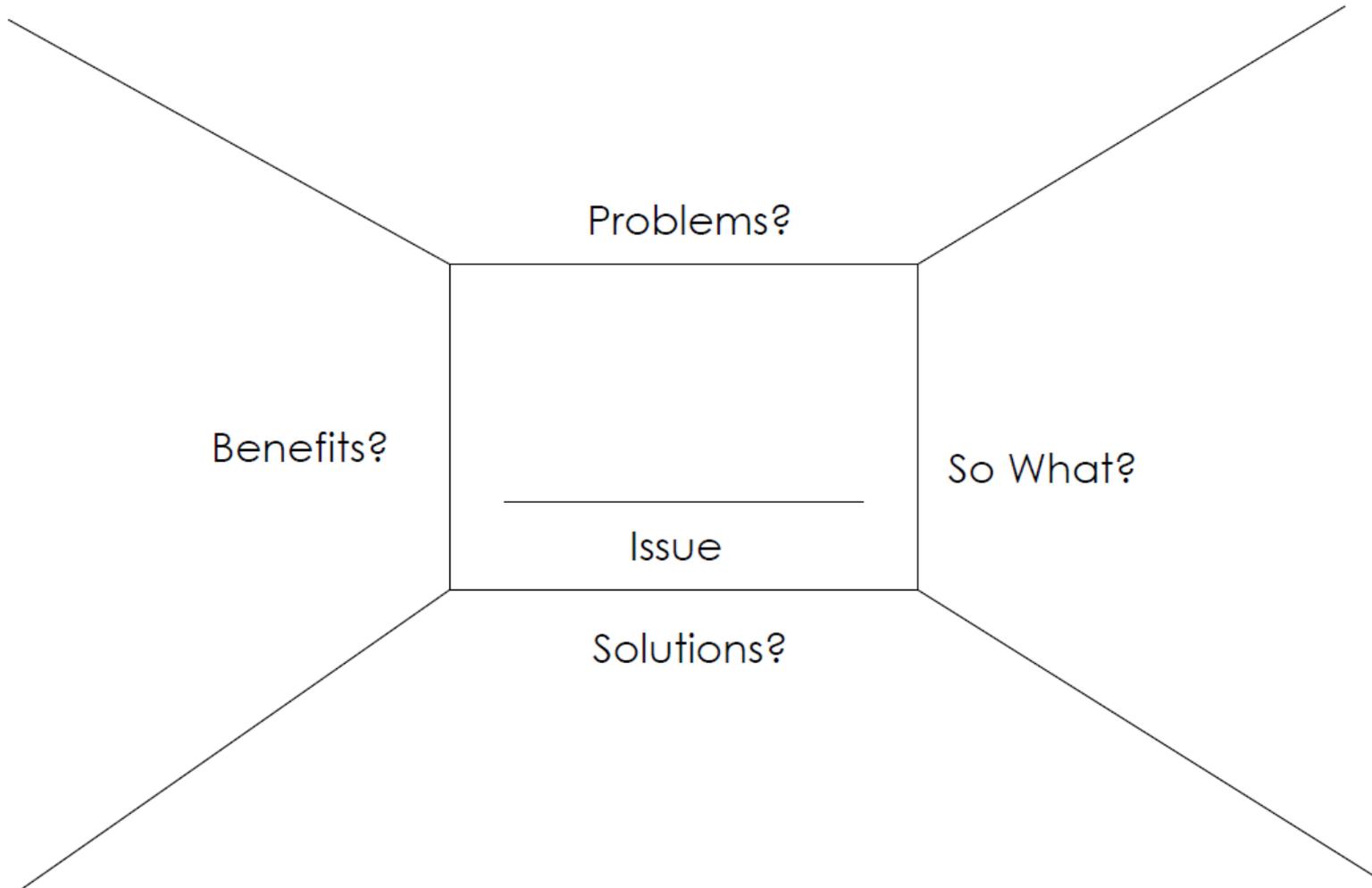
***Issue:** In broad terms, what is the overarching issue or topic?*

- 1. Problem:** What is the specific problem or piece of the issue I am addressing?*
- 2. So What?:** Why does this matter to my audience?*
- 3. Solutions:** What are the potential solutions to the problem?*
- 4. Benefits:** What are the potential benefits of resolving this problem?*



Message Box

Audience: _____



Guidance for group work: Message Box for your own science (30 – 45 min)

For this exercise, each group member should select one of the following three categories of people and prepare a message box for them:

1. a local journalist in your area (intensely interested in the local angle to your research)
2. a science journalist for the New York Times (very interested in the broader implications to your work, both nationally and internationally)
3. a journalist working for a magazine published by an interest group, such as an environmental organization, industry trade association, or political group (very interested in how your research affects the interests of the group that the journalist is writing for)

About the journalist ...

The Message Box is a structured method that scientists can use to craft their science messages for non-specialist audiences. This technique is frequently introduced as a way for researchers to effectively communicate with journalists and, in fact, our use of the Message Box will feature a back-and-forth between a scientist and a (pretend) reporter.

This is about a lot more than just media training, as the journalist is really a stand-in for the audience with whom a researcher is attempting to communicate.

Detailed guidance for group work

1. After having selected your category of journalist / people, each team member takes 15 – 20 min to develop his/her message box.
2. After 20-25 min, please agree within the group on (only) one (volunteer) journalist and one (volunteer) interviewee. You should then take 10 - 15 minutes to prepare and train for an interview:
 - The interviewee only tells the journalist the general issue and the audience you are addressing.
 - The group develops and agrees on 3 to max 5 questions for the journalist to ask.
 - The interviewee starts making up his/her mind about the answers.
 - Come back to the seminar room !!!

Five Message box interviews / presentations (30 min)

1. (Only) One journalist and one interviewee of each of the five teams conduct a prepared five - six minute interview.
2. Again, the audience (all participants) are only informed about the general issue and the audience you are addressing.
3. The Journalist initiates the interview by saying that he or she would like to write a story involving the Scientist's issue. The Journalist should be sure to ask lots of questions, coming from the perspective of the audience being addressed.
4. Keep an eye out for jargon and double-meaning language.

Feedback & discussion round (30 min)

1. Share your experience of developing your message box!
2. Did you develop your “So what?” What is it?
3. What was easy? What was difficult?