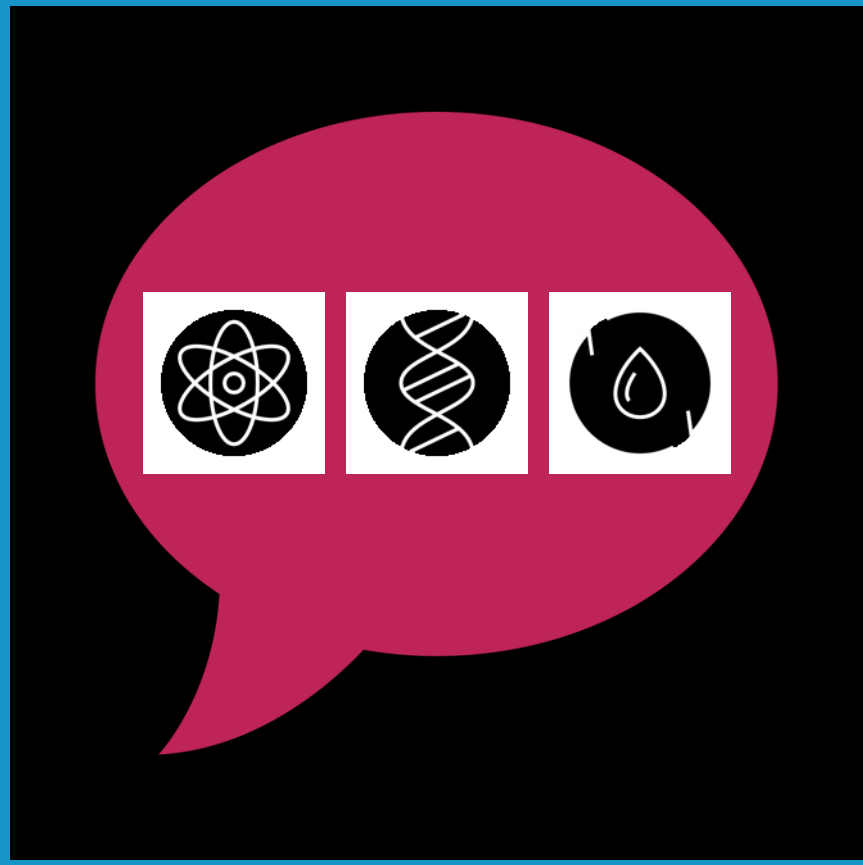
Becoming a Champion for You Science: How to Talk with Policy and Decision Makers

Roger D. Aines and Amy L. Aines



Consider the IPCC Summary for Policy Makers

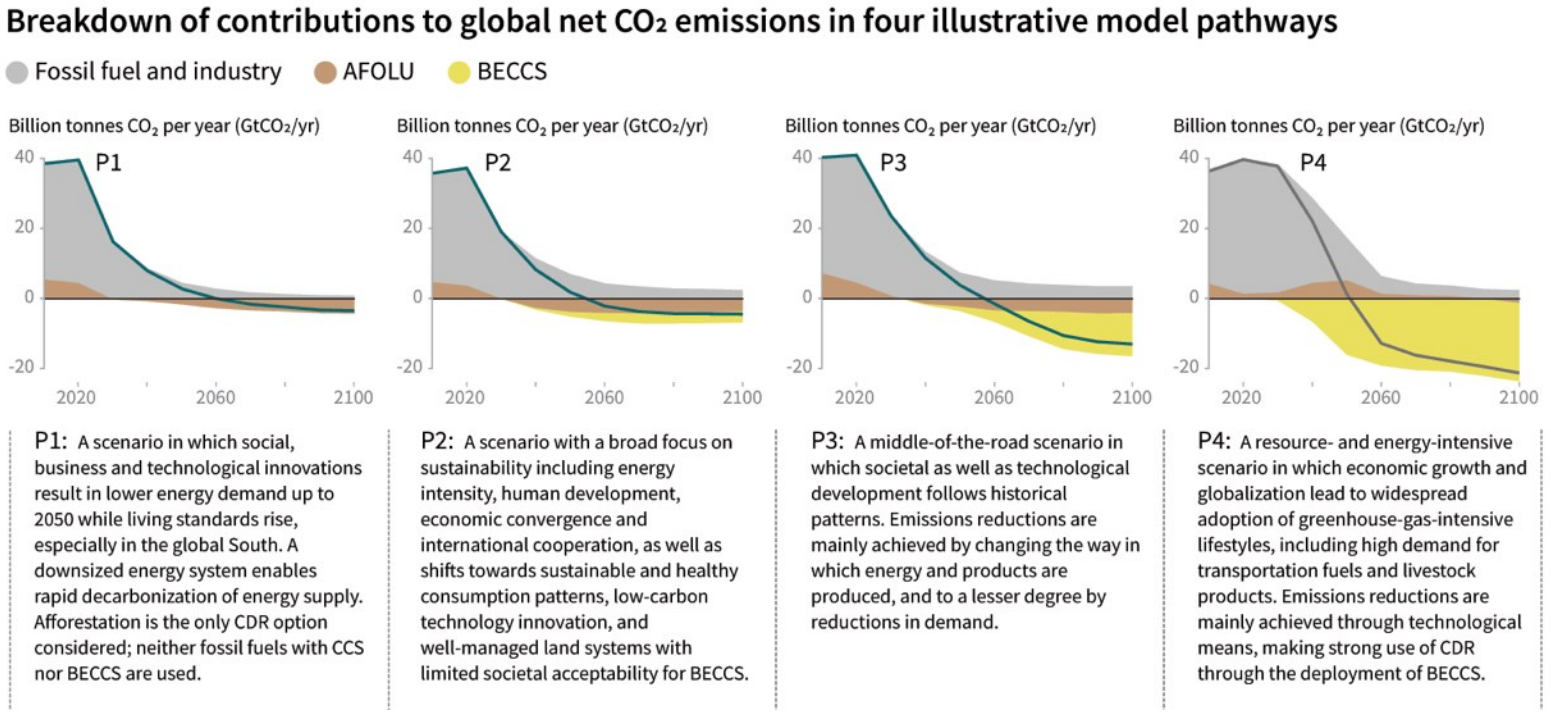
Four major options

Enormous amount of text

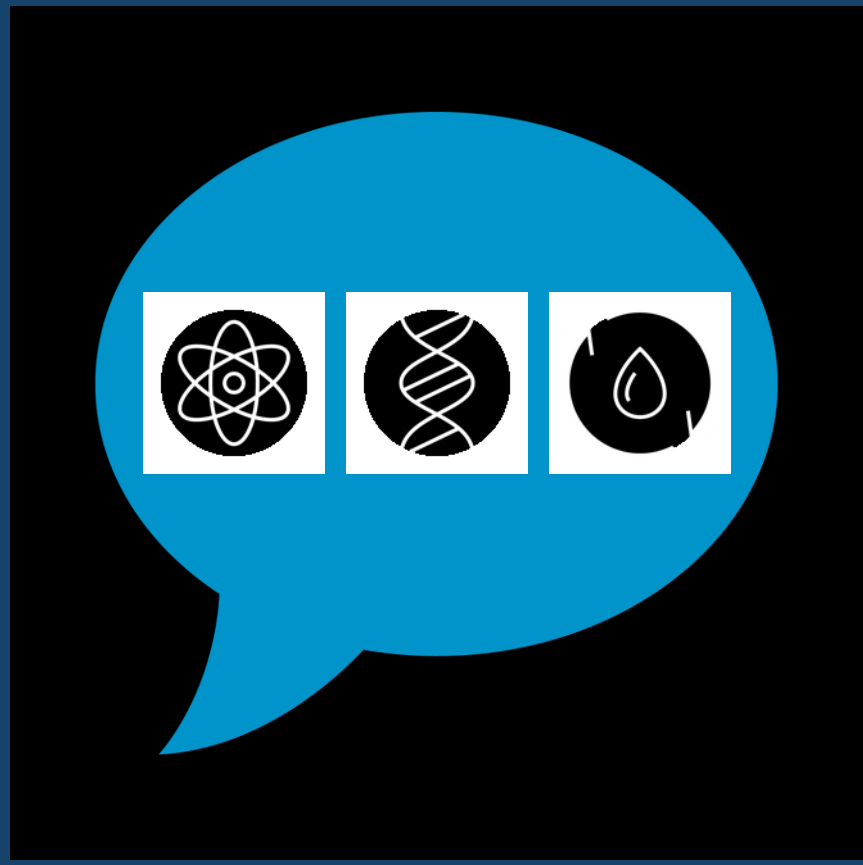
Jargon and acronyms

Does not specify course of action

Was this figure made for policy makers, or other scientists?

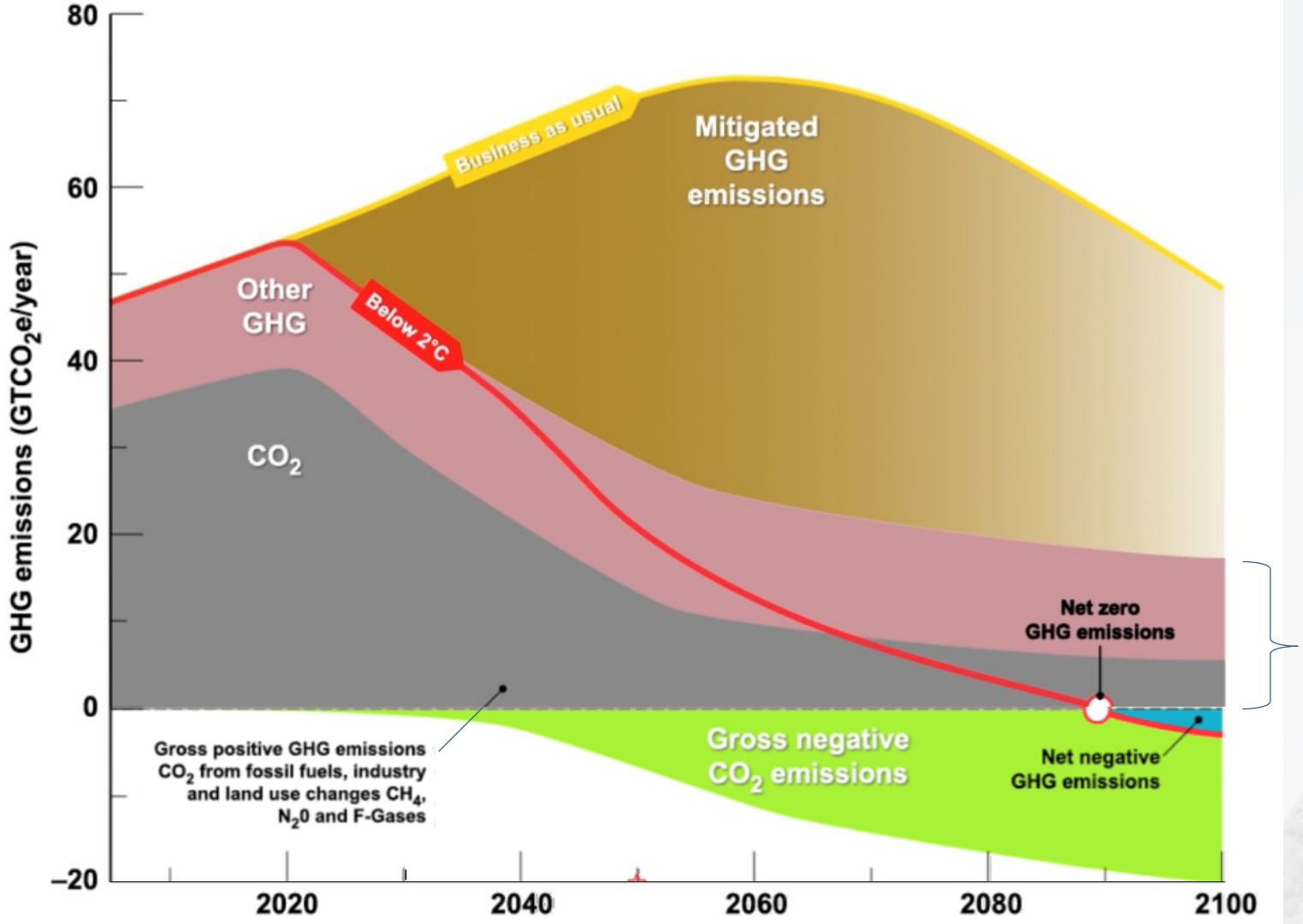


Now consider a simplified message



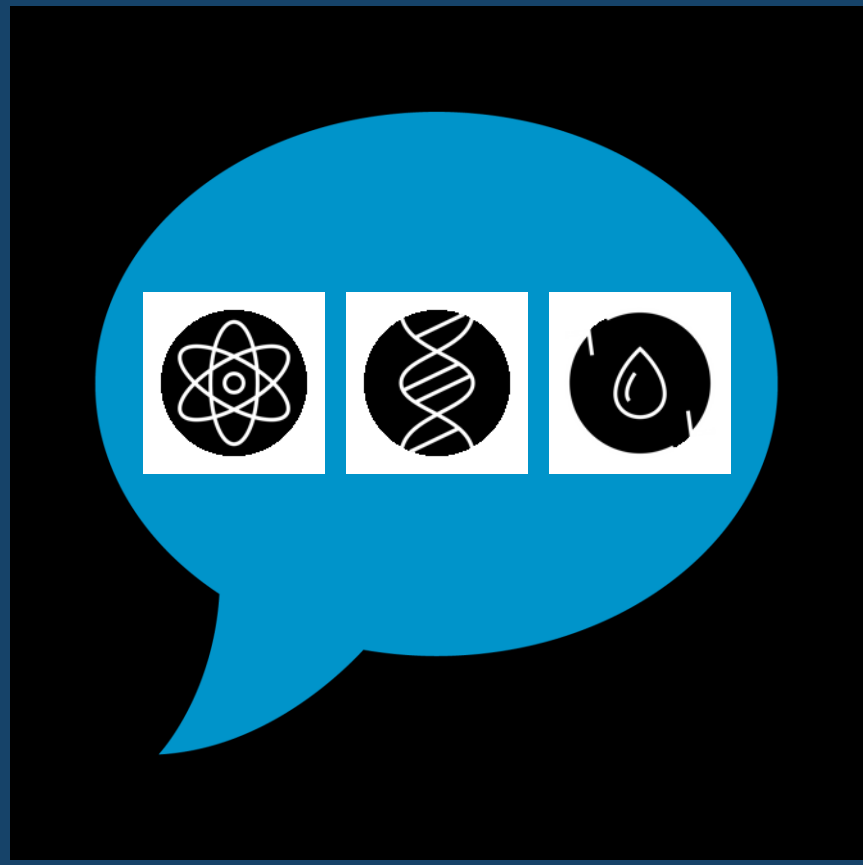
To Achieve Paris Goals

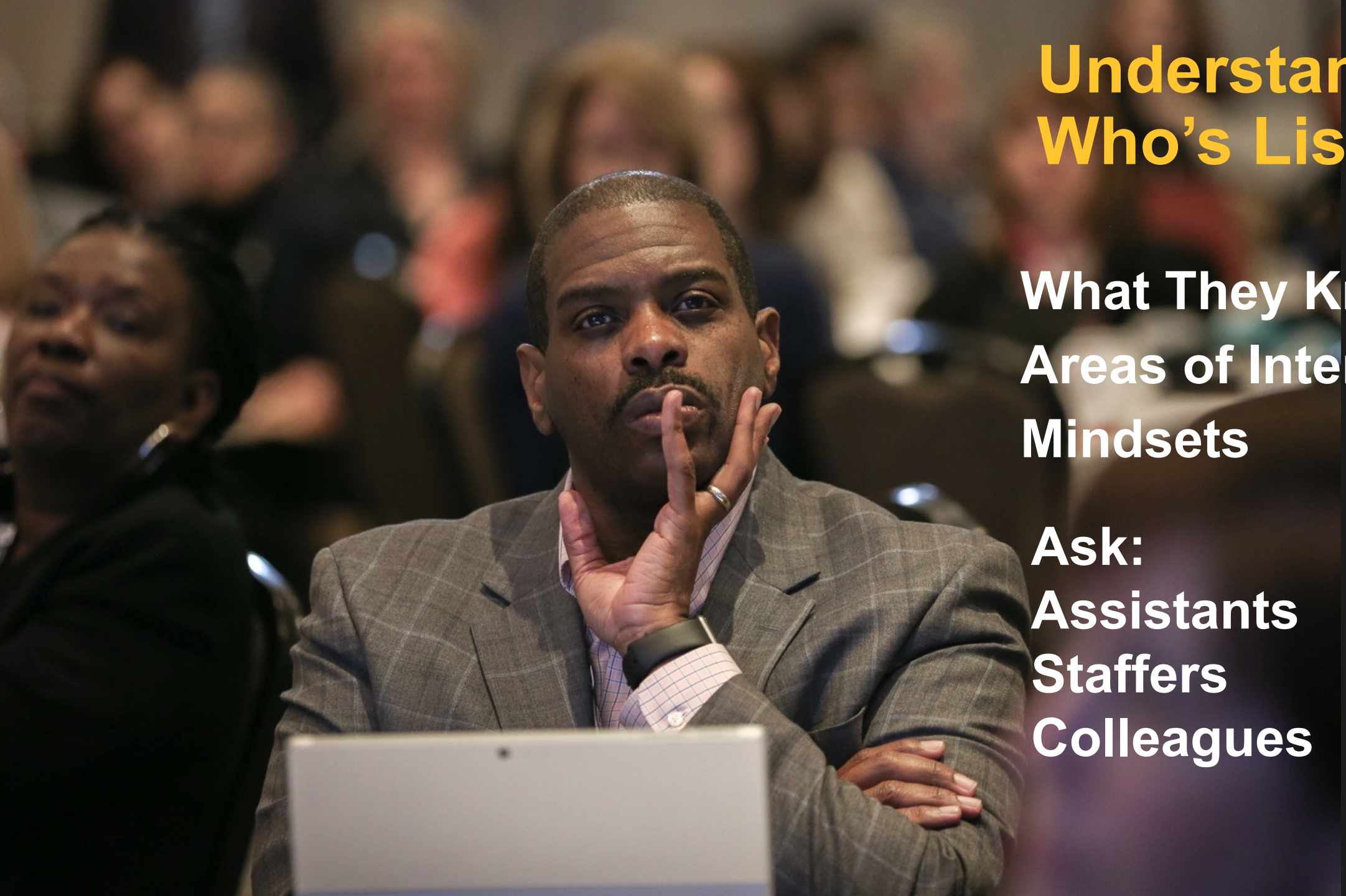
We will have to remove atmospheric carbon dioxide



Residual

Who’s Listening





Understand Who's Listening

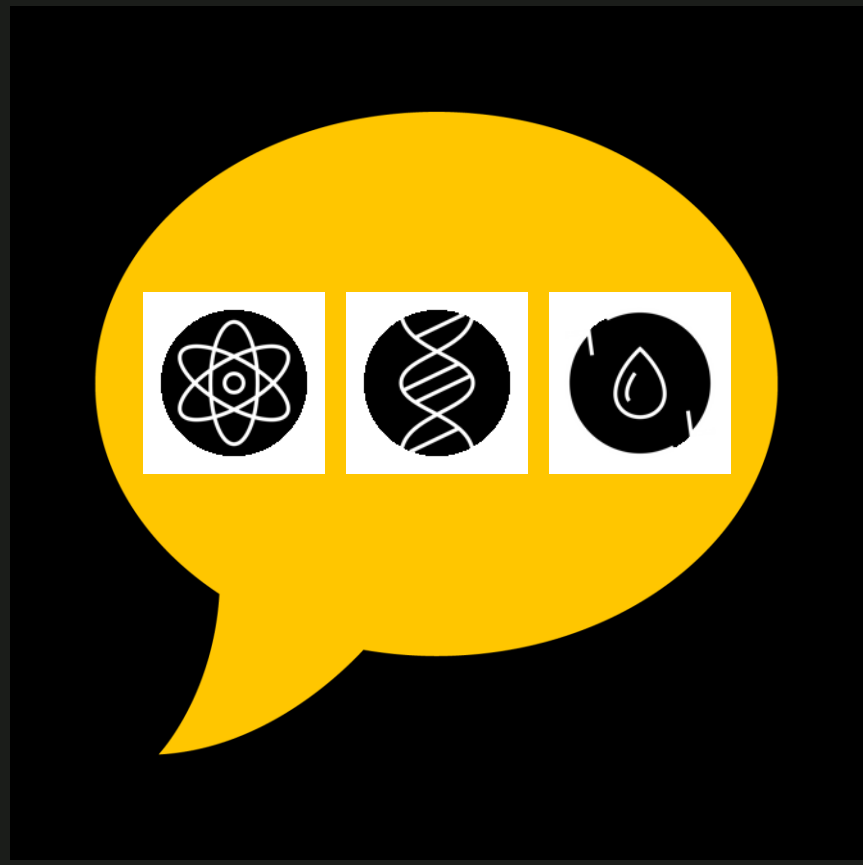
What They Know
Areas of Interest
Mindsets

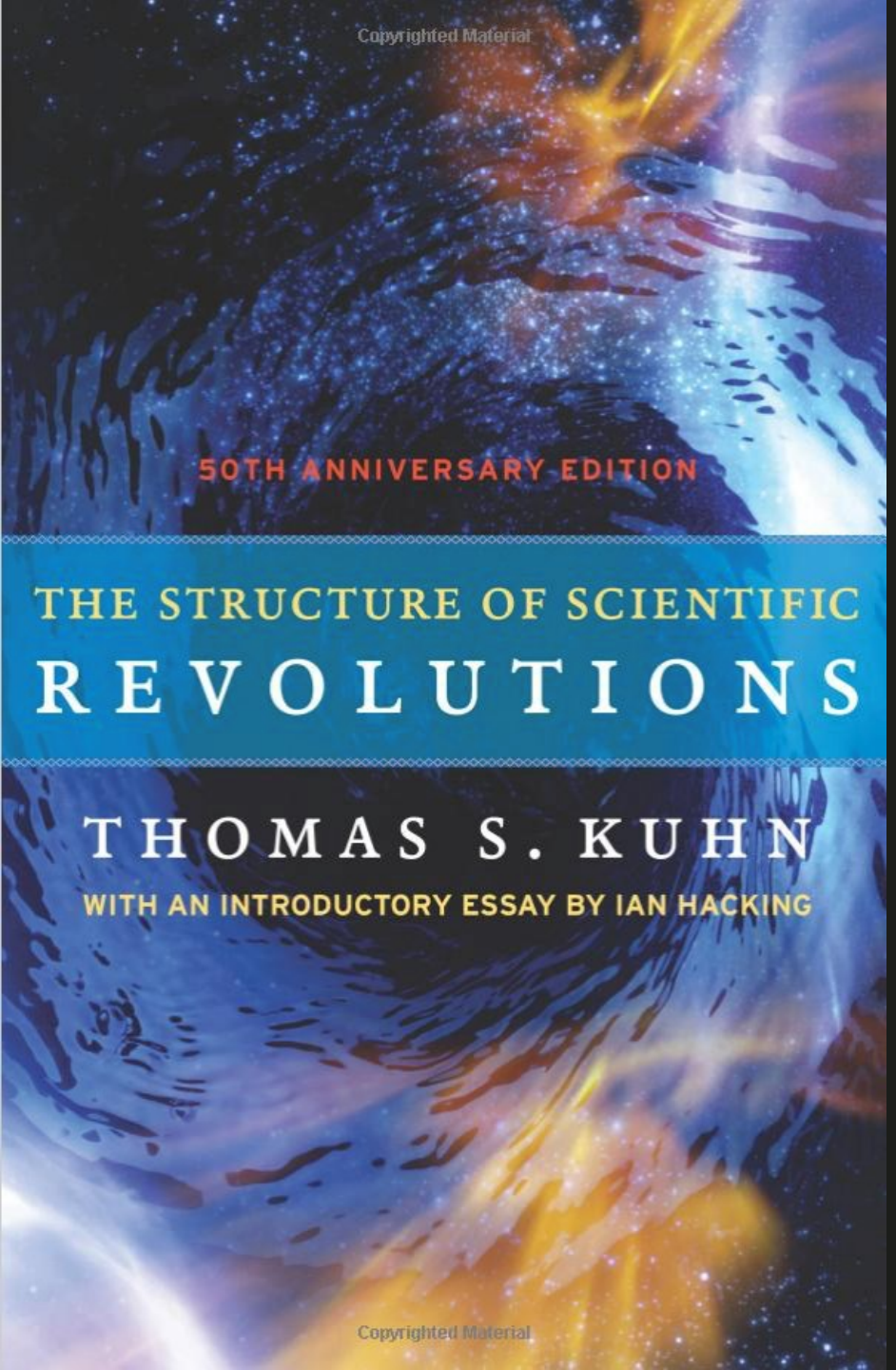
Ask:
Assistants
Staffers
Colleagues


Remember that in front of
a decision maker, you are
not defending your idea
Niels Bach


You are teaching and influencing
CALIFORNIA'S POLICIES
— ARE STRONGER WITH —
SCIENCE
CCST
CALIFORNIA COUNCIL ON
SCIENCE & TECHNOLOGY
Rob Oglesby
CCST
Laura Iraci
NASA Ames Research
Center
Jennifer Pett-Ridge
Lawrence Livermore
National Lab
Blake Simmons
Lawrence Berkeley
National Lab

Why do scientists communicate so well with each other, and fail with decision makers?





Paradigm

The sum of information that scientists associate with a topic.

For instance, Mid Ocean Ridge Basalt


News

To me, Mid Ocean Ridge Basalt conveys the entire structure of the earth:

- Spreading ocean basins
- Subduction zones consuming the crust
- Volcanoes building new land
- The grandeur of plate tectonics

Image National Geographic

But for most people, rocks are something you find in a stream.

When you don’t share a paradigm:

You don’t have the ability to understand the same things,

You don’t even have a framework for understanding,

You can’t translate the words.

And it is extremely rare to share a paradigm with a decision maker.

How to Bridge Paradigm Gaps

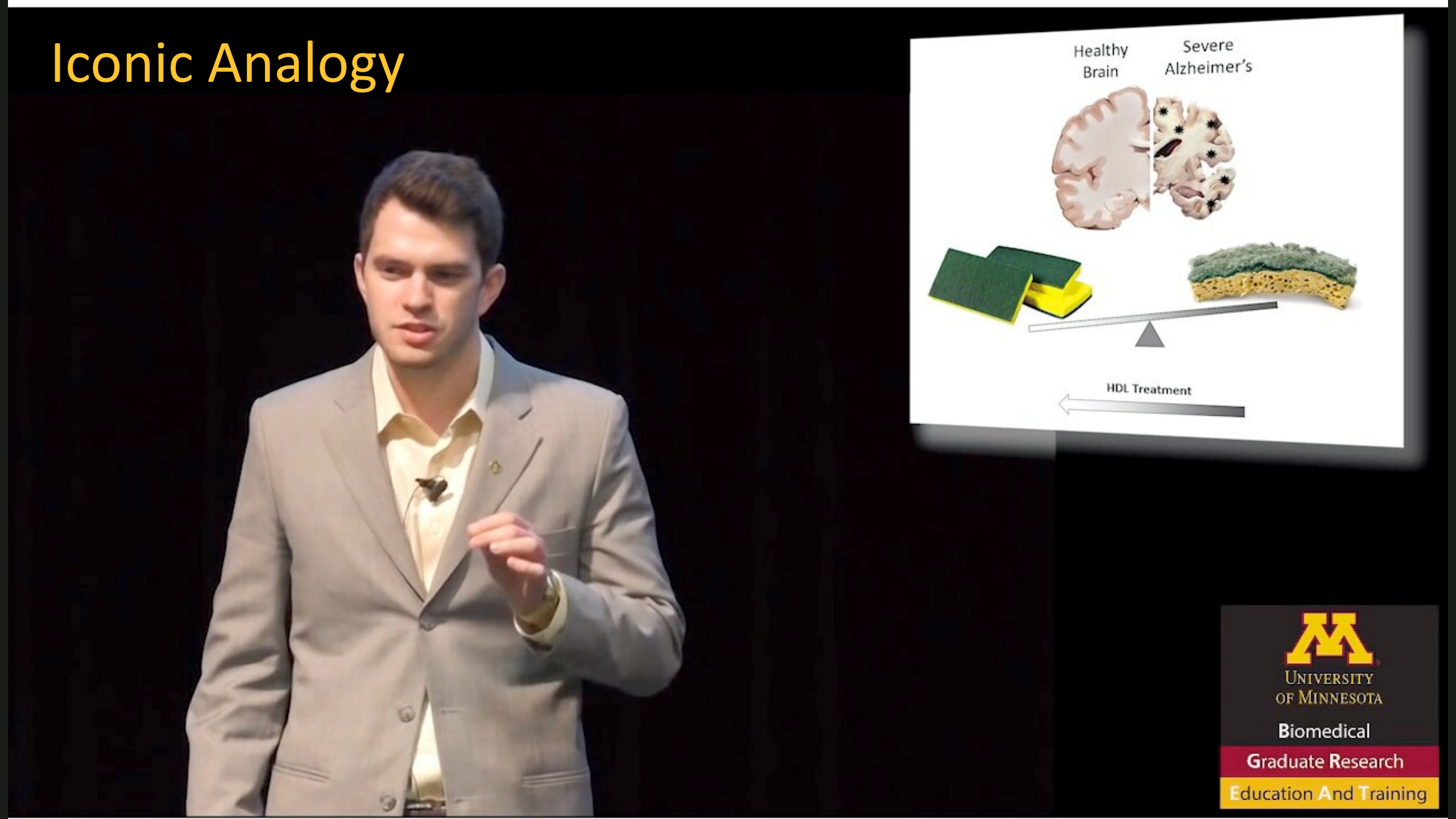
Use clear, common language

Use mixed phrasing for mixed audiences

Anchor to an iconic analogy

Self aware and self correcting

Iconic Analogy



University of Minnesota
Biomedical
Graduate Research
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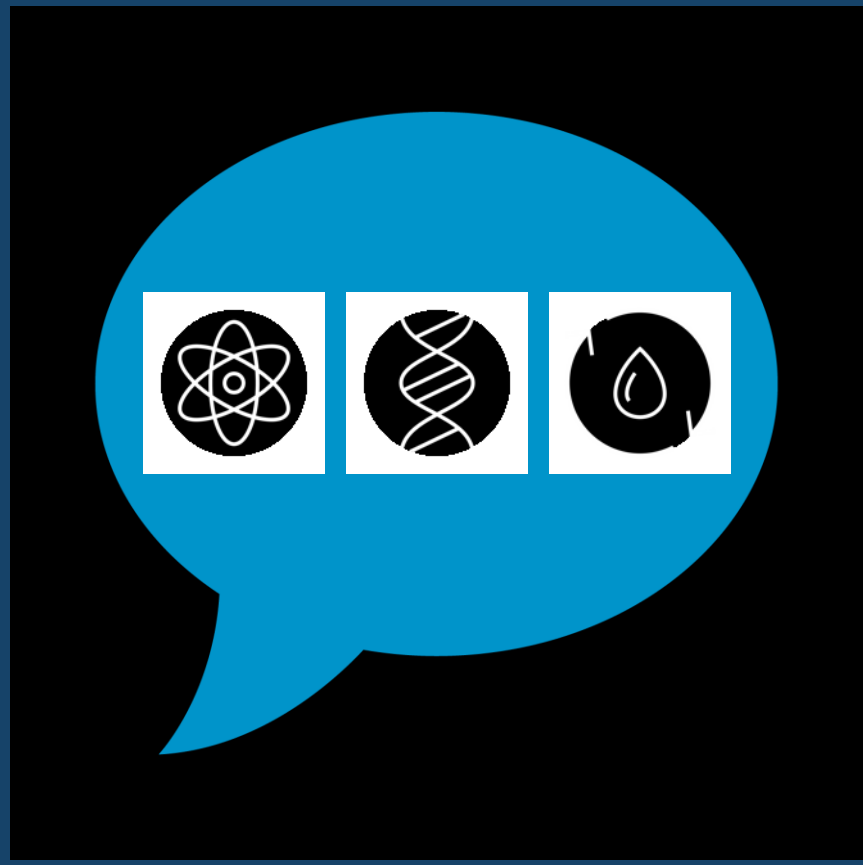
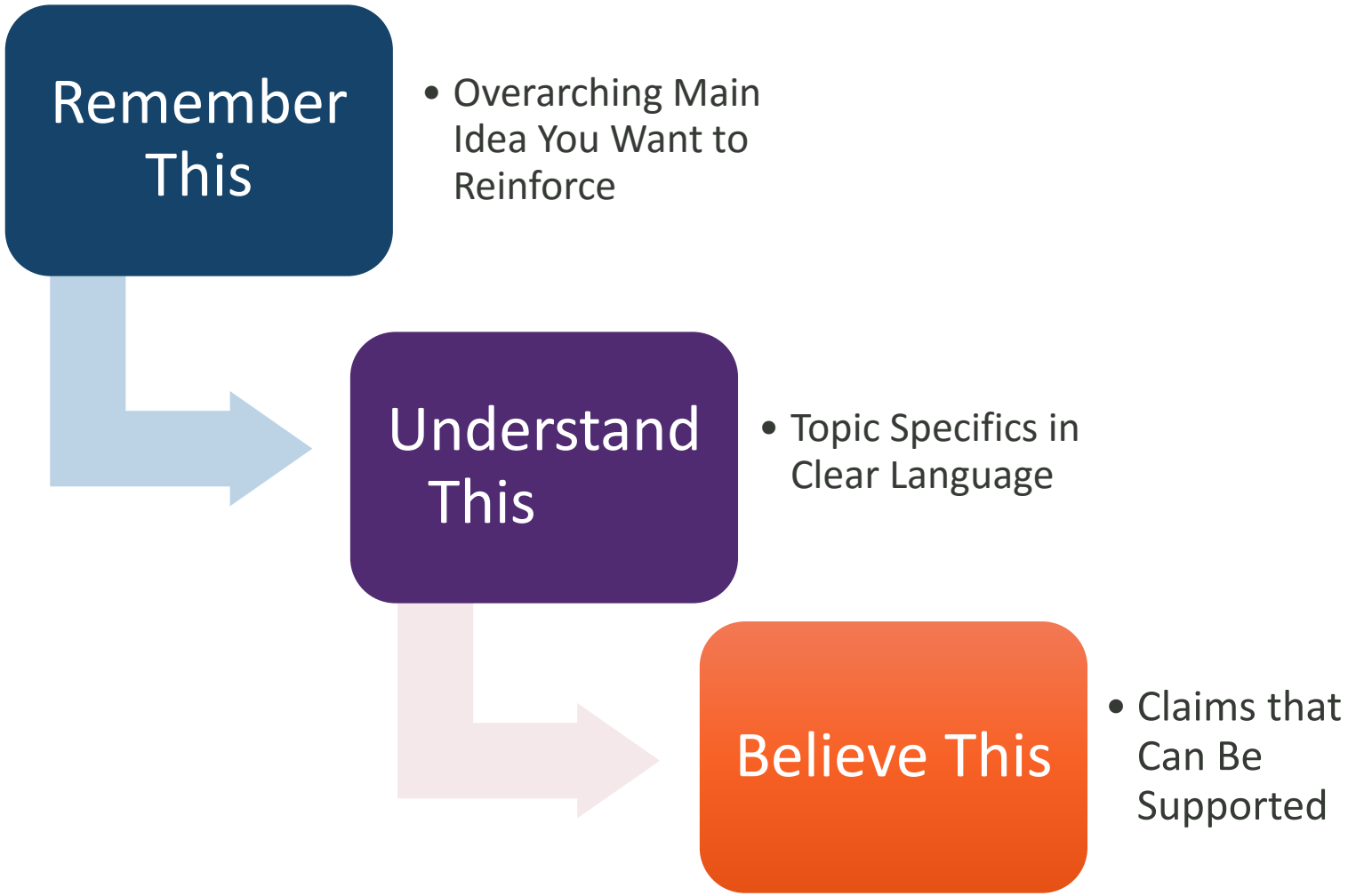
What’s Your Message



Messages



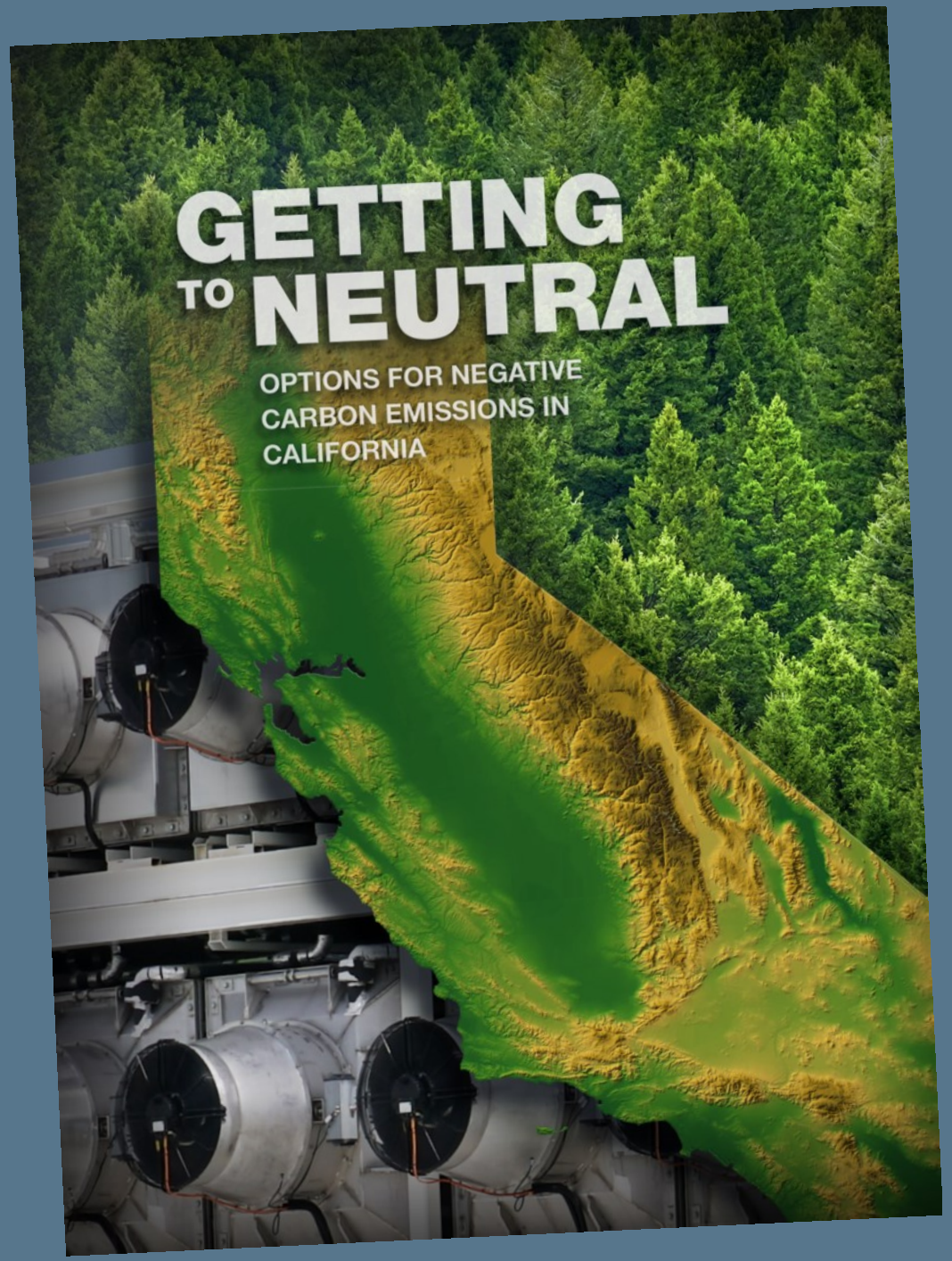
The most important ideas to convey that are tailored to your listeners

Developing Messages

Extract the essence of your argument or ideas.

Distill your messages into well-constructed, carefully chosen phrases.

Bring your science to life with clear and compelling language.



An example message:

California can achieve its goal of carbon neutrality by 2045 through negative emissions.

We now know how.

Google *Getting to Neutral* to download the report

https://www-gs.llnl.gov/content/assets/docs/energy/Getting_to_Neutral.pdf

How can California achieve 125 MT/year of negative emissions by midcentury?

- Natural and Working Lands

25 MT/year
$20/ton CO2

- Waste Biomass Conversion to Fuels with CO_2 Storage

Todd Nishikawa, Placer Cty Air Pollution Control District

84 MT/year
$60/ton

- Direct Air Capture with CO_2 Storage

16+ MT/year
$190/ton

Technological readiness: mid-to-high – no new breakthroughs required

Ideas must be heard and understood to drive action

Research your listeners

Know your **message**

Use **understandable language**