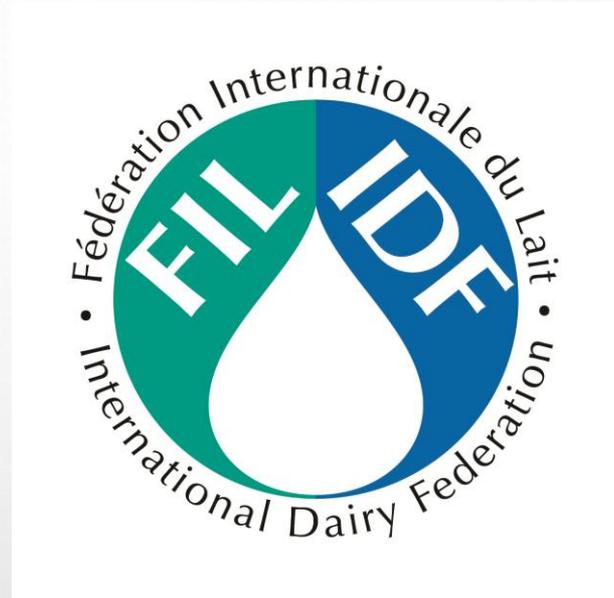


Promoting science-based regulatory decisions

Nico van Belzen, PhD

IOFI GA, 12 Oct. 2017, Brussels

Association background



Vision

“Wherever possible, decision making should be informed by the best and most recent scientific information. Notwithstanding the importance of 'other legitimate factors', science-based decisions usually provide the best long term outcomes.”

www.scienceconsult.eu

Or, simply put...

CN=C(N)NCC(=O)[O-]

Give
science
— more —
weight
scienceconsult.eu



The background of the slide is a light gray gradient. It is decorated with several realistic water droplets of various sizes, scattered in the corners. The droplets have highlights and shadows, giving them a three-dimensional appearance. The main text is centered in a large, bold, black sans-serif font.

Bottlenecks in applying science

Legal risk of providing scientific advice



L'Aquila's prefecture after the 2009 earthquake.

Wikimedia Commons

Italy's supreme court clears L'Aquila earthquake scientists for good

By Edwin Cartlidge | Nov. 20, 2015, 6:45 PM

The background of the slide is a light gray gradient. It is decorated with several realistic water droplets of various sizes, scattered in the corners. The droplets have highlights and shadows, giving them a three-dimensional appearance. The text is centered in the middle of the slide.

Reputational risk of providing scientific advice

Scientific bias

[The American Journal of Digestive Diseases](#)

..... October 1940, Volume 7, [Issue 10](#), pp 443–445

The presence of spirochetes in human gastric mucosa

Authors

[Authors and affiliations](#)

A. Stone Freedberg, Louis E. Barron

1940

[Lancet](#). 1983 Jun 4;1(8336):1273-5.

Unidentified curved bacilli on gastric epithelium in active chronic gastritis.

[Warren JR](#), [Marshall B](#).

1983

[Lancet](#). 1990 May 26;335(8700):1233-5.

Cure of duodenal ulcer associated with eradication of *Helicobacter pylori*.

[Rauws EA¹](#), [Tytgat GN](#).

1990

Changing public appreciation of science



Beat Späth @BeatSpath · Sep 9

The rise of #antiscience #witchhunt #postrtruth



Val Giddings, gmopundit, Modern Farmer and Mark Lynas

Expertise devaluation and ‘pick-your-science’

**“...misinformation on scientific issues abounds (...),
fueled by a never-ending news cycle in which anyone
with an internet connection can pose as an expert.**

**Instead of seeking the best available science, elected
officials seek analyses that support the policies they
wish to put forward.”**

[PLoS Biol.](#) 2013 May; 11(5): e1001553.

Published online 2013 May 7. doi: [10.1371/journal.pbio.1001553](https://doi.org/10.1371/journal.pbio.1001553)

Reinvigorating the Role of Science in Democracy

[Andrew A. Rosenberg](#), [Michael Halpern](#), [Seth Shulman](#), [Celia Wexler](#), and [Pallavi Phartiyal](#) *

The 'post-truth' era

“Post-truth” Postulates and their Application to Food Regulatory Policy

THERE ARE UNCOMFORTABLE PARALLELS TO THE NEW POLITICAL PARADIGM AS ALTERNATIVE FACTS AND OPINION GAIN TRACTION OVER EVIDENCE-BASED POLICY.

WORDS BY GEOFFREY ANNISON PhD
AUSTRALIAN FOOD AND GROCERY COUNCIL

“Post-truth”: Beyond or superseding the importance of truth; usually in a perjorative sense, uncaring of factual accuracy.

Risk assessment controversies

REUTERS INVESTIGATES **Cancer divide**

How the World Health Organization's cancer agency confuses consumers

By [Kate Kelland](#) | Filed April 18, 2016, 7:40 a.m. GMT



CORPORATE EUROPE OBSERVATORY

Exposing the power of corporate lobbying in the EU

THE POWER OF LOBBIES | ECONOMY & FINANCE | ENVIRONMENT | FOOD AND AGRICULTURE | INTERNATIONAL

EFSA and Member States vs. IARC on Glyphosate: Has Science Won?

NOVEMBER 25TH 2015 | FOOD AND AGRICULTURE

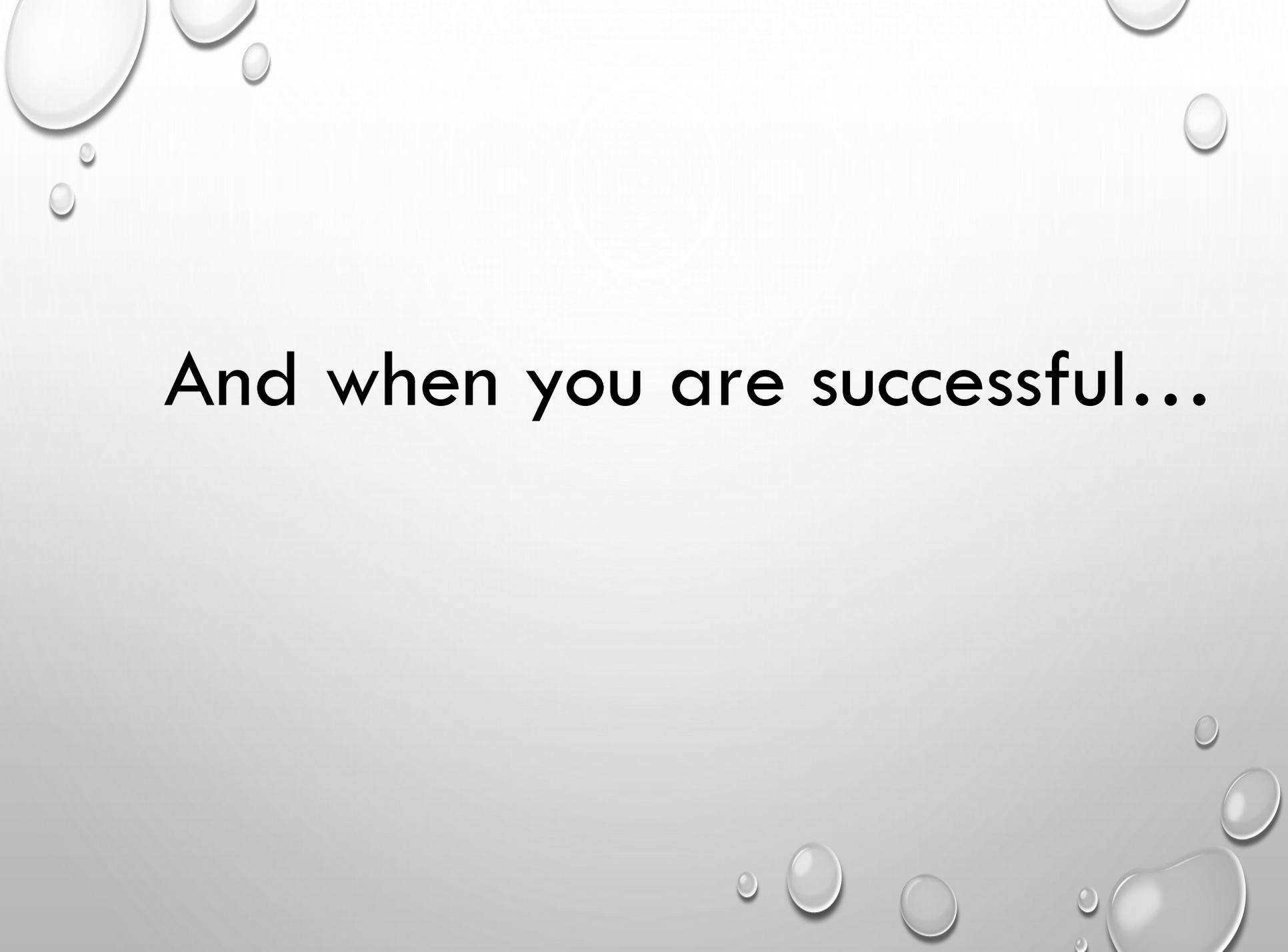
IGO secretariat influence



Nico van Belzen @Scienceconsult · 12 Oct 2014



It's understandable that not all #ICN2 delegates are nutrition experts; less so, that some rely solely on secretariat w/o nat'l expert input

The image features a light gray gradient background with several realistic water droplets of various sizes scattered in the corners. The droplets have highlights and shadows, giving them a three-dimensional appearance. The text is centered in the middle of the page.

And when you are successful...



FoodMinds

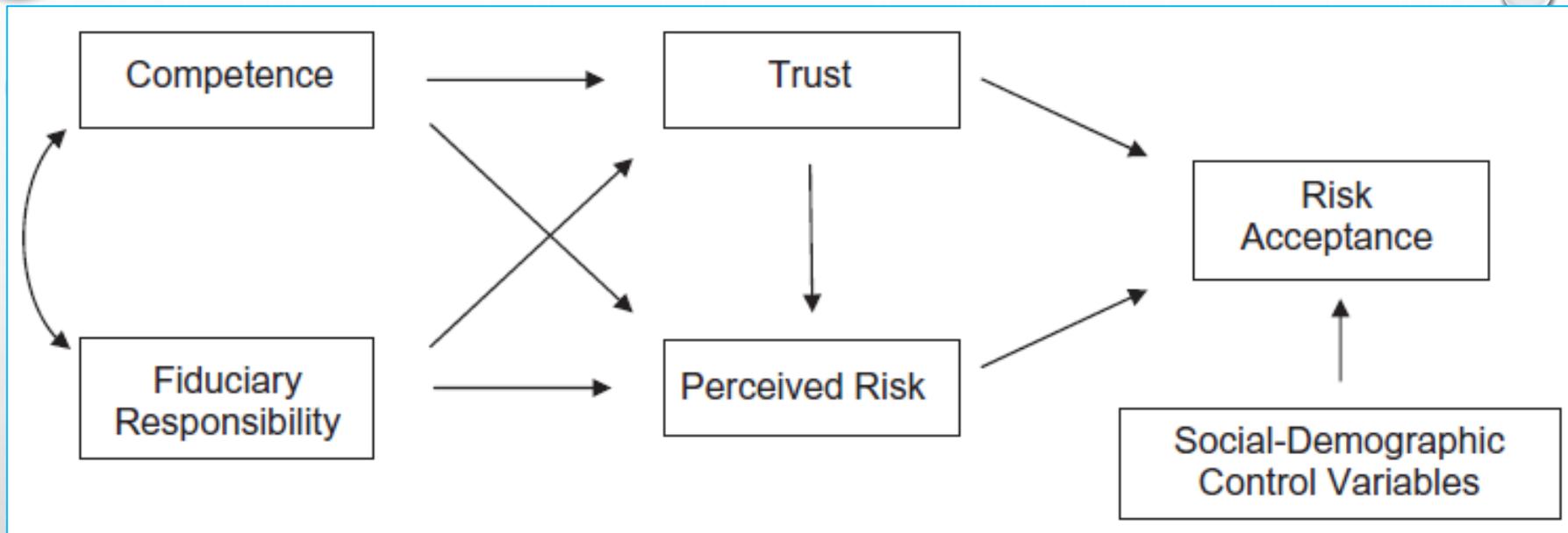
@FoodMinds

Following

"Facts are 3-5 times less important to consumers than connection through values."
-Roxi Beck of Center for Food Integrity

[#CRISPRcon](#)

2:09 AM - 17 Aug 2017



Consumer acceptance of food irradiation: a test of the recreancy theorem

Stephen G. Sapp and Teresa Downing-Matibag

Department of Sociology, Iowa State University, Ames, IA, USA

[doi: 10.1111/j.1470-6431.2009.00772.x](https://doi.org/10.1111/j.1470-6431.2009.00772.x)

Evolution selects for survival/reproduction – not for truth

The need for early humans to collaborate on e.g. hunting created strong social pressures and the need for trust and information sharing.

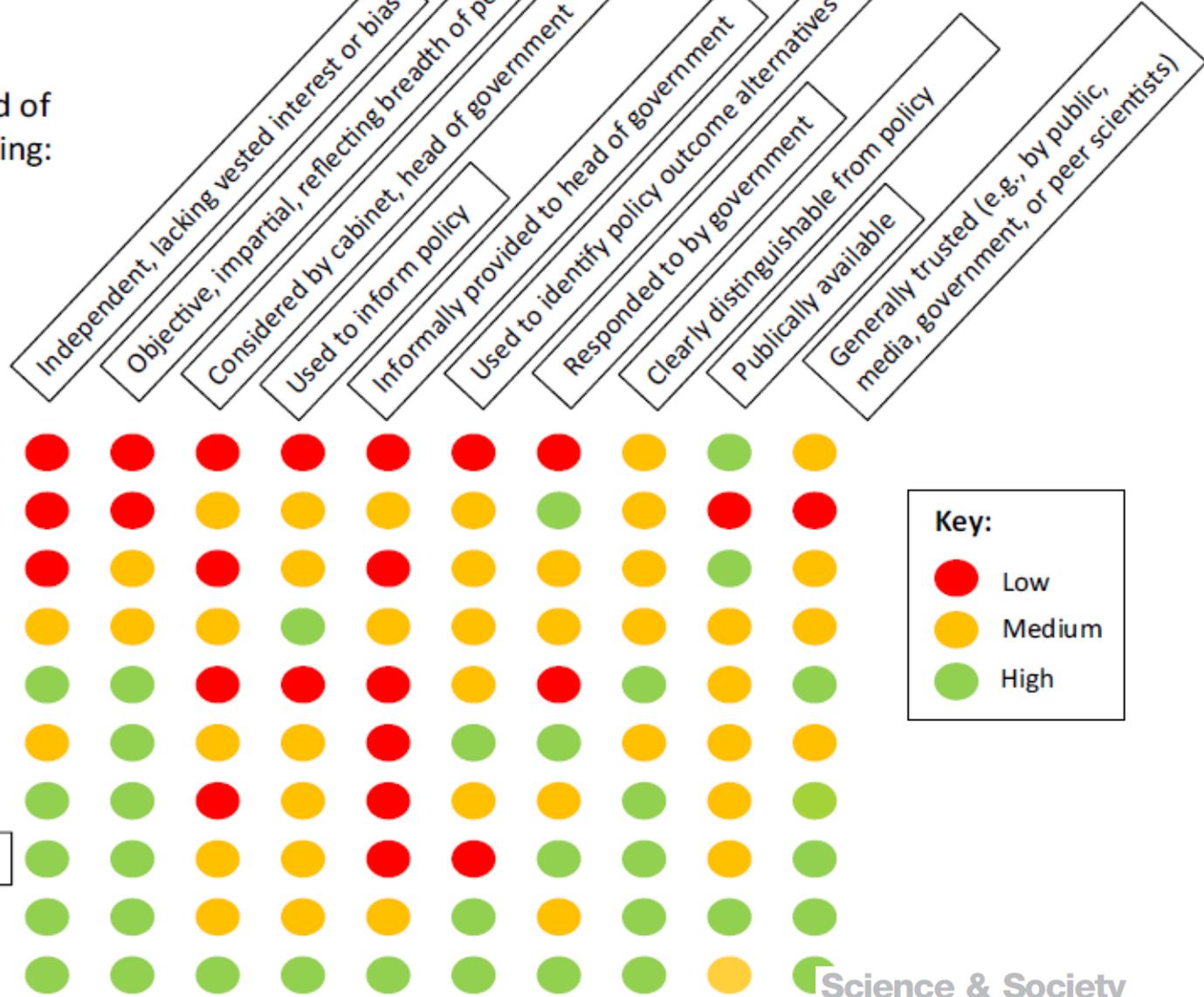
In this environment, group cohesion around shared values was often more important for survival than truth.

“Our perceptions of space-time and objects have been shaped by natural selection to hide the truth and guide adaptive behaviors.”

Hoffman, Singh, Prakash (2015) Psychon Bull Rev 22:1480

General likelihood of science advice being:

Source of science advice:



Key:

- Red dot: Low
- Yellow dot: Medium
- Green dot: High

Science & Society
 Communication of
 Science Advice to
 Government

Figure 1. Models for the Communication of Science Advice, Ranked by Subjective Likelihoods of Achieving Desirable Outcomes.

The value of science

“Science, by itself, provides no panacea for individual, social, and economic ills (...) But without scientific progress no amount of achievement in other directions can insure our health, prosperity, and security as a nation in the modern world.”

Science - The endless frontier

Report from Dr. Vannevar Bush to President Truman, 1945



National Science Foundation
WHERE DISCOVERIES BEGIN

Science in associations

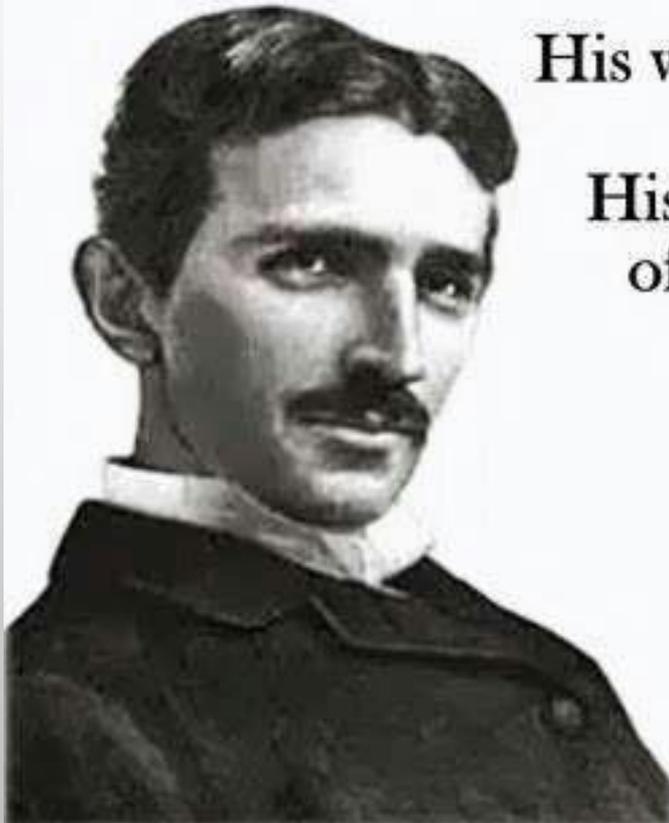
Associations can help apply science to policy by

- **Explaining a complex scientific issue**
- **Achieving consensus within an industry sector**
- **Initiating industry action (e.g. *trans* fats)**
- **Establishing a platform for discussion between academia, industry and government, e.g.**
 - **Integrating the view of academic and industry scientists, improving applicability**
 - **Addressing the ‘duelling experts’ problem by workshops**

Key factors

- **Transparency, e.g. about source of funding, potential conflicts of interest and scientific uncertainty**
- **Weighing of all available evidence**
- **Engagement of public sector scientists**
- **Publication in peer reviewed journals**
- **Constructive attitude**
- **Consistent quality, long term view (represent *association*)**
- **Engage country delegates of intergovernmental organizations**
- **Support independence of e.g. Codex Alimentarius**

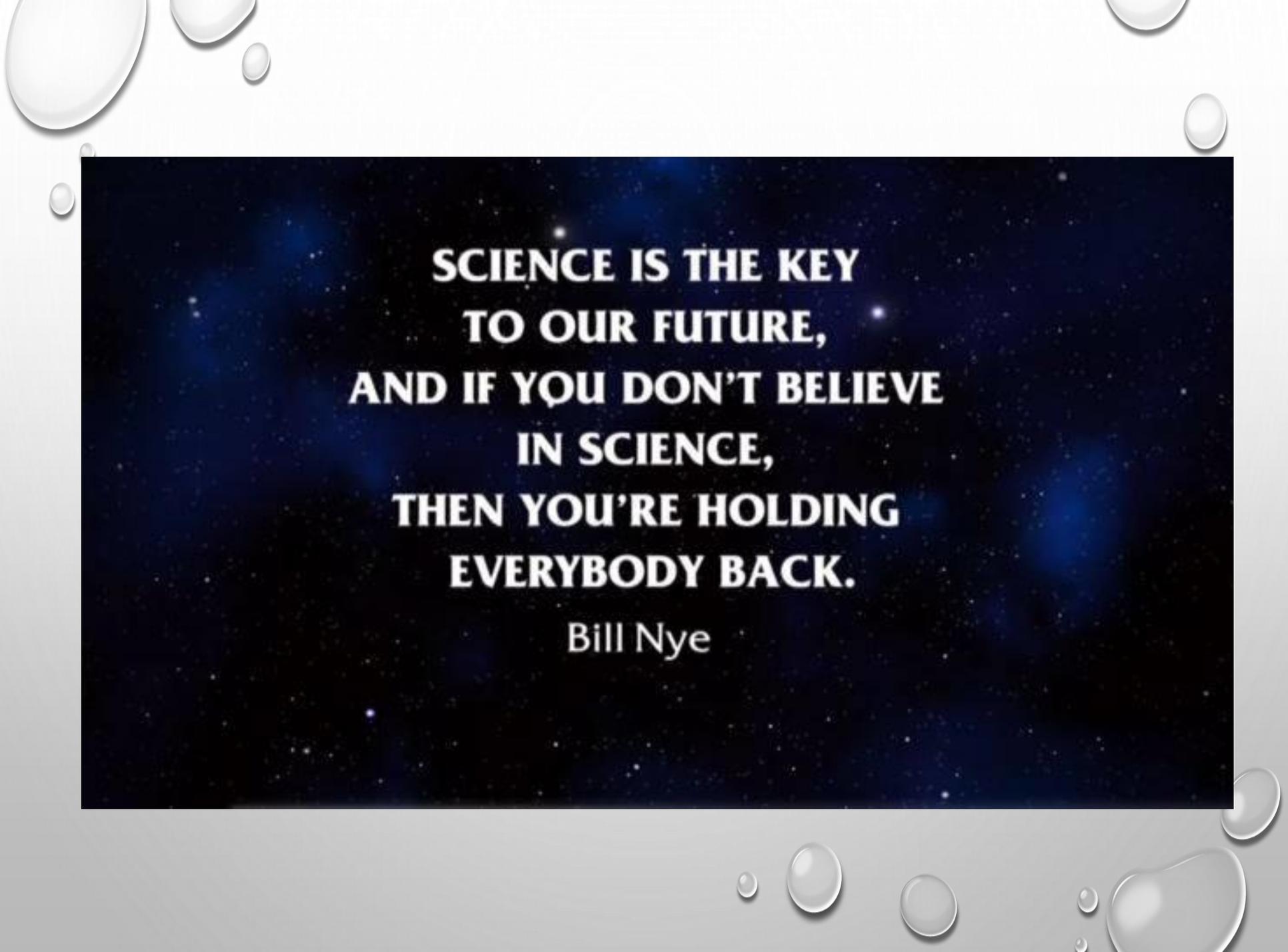
The scientific man does not aim
at an immediate result.
He does not expect that his advanced ideas
will be readily taken up.



His work is like that of a planter -
- for the future.

His duty is to lay foundation
of those who are to come
and point the way.

Nikola Tesla



**SCIENCE IS THE KEY
TO OUR FUTURE,
AND IF YOU DON'T BELIEVE
IN SCIENCE,
THEN YOU'RE HOLDING
EVERYBODY BACK.**

Bill Nye