

Effective nuclear communications David Hess

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Section 1 COMMUNICATION BASICS



David Hess, Policy Analyst World Nuclear Association



We are natural communicators





David Hess @6point626 · 18m We can actually show people what nuclear waste looks like. We can provide hard numbers on volumes. We can point to reuse and recycle schemes as well as consent based siting. Hell, today's nuclear power sector is probably the poster child for sustainable waste management

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What is communication

Definition: "the imparting or exchanging of information by speaking, writing or using some other medium"

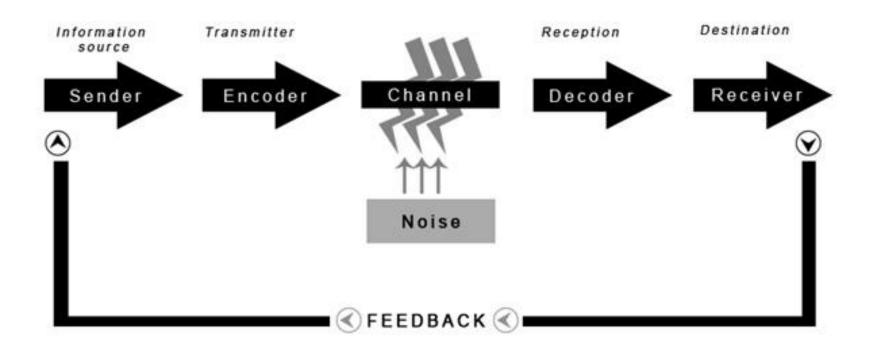
Main Types

- Verbal: the use of language to transfer information through speaking or sign-language
- Non verbal: the use of body language, gestures and facial expressions, even inarticulate noises to transfer information
- Written: using writing or printing symbols to transmit information
- Visual communication: images, movies, dance, etc.

Can you think of others?



Basic communication model

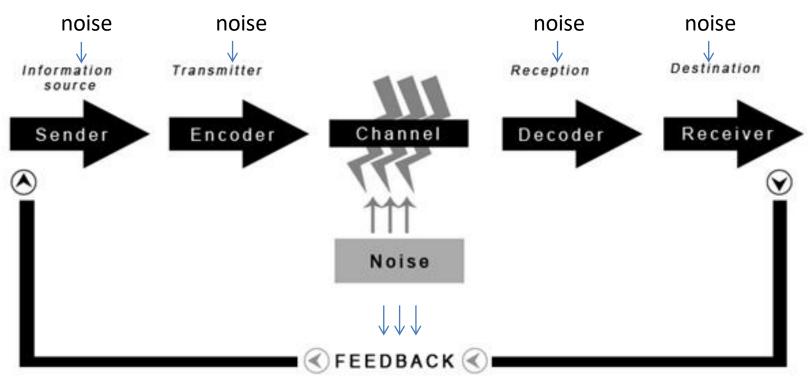


SHANNON-WEAVER'S MODEL OF COMMUNICATION

Image source: communicationtheory.org

WORLD NUCLEAR UNIVERSITY

Basic communication model Many points of possible failure!



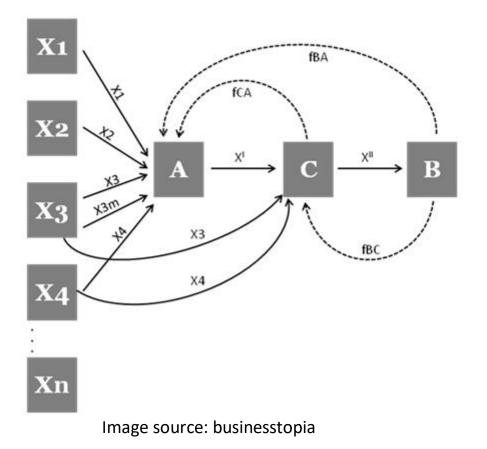
SHANNON-WEAVER'S MODEL OF COMMUNICATION

Image source: communicationtheory.org



Example of a complex model

Westley and MacLean's Model of Communication



- A = sender
- B = receiver
- C = 'gatekeeper'
- (eg the media)
- Xn = background
- X' = original

message

- X" = final message
- f= feedback

Elements of verbal communication more than just a message



WORLD **NUCLEAR**

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Communication Basics Key points

- Humans are 'communication animals'. Almost anything we do can transmit information.
- We use communication to: Share information, ask questions, express wants and needs, develop relationships, maintain social etiquette etc
- Communication is a complex process. It:
 - Consists of multiple elements
 - Can go wrong in many different ways.
- Effective communication is about more than just 'the message'. It's a combination of these diverse elements.
- There is an evolving 'science of communication' that communication experts need to be aware of



Quick quiz.

Q1 How do you like to receive your information? (multiple choice)

Q2 What type of communication are you best at? (multiple choice)



Section 2 STRATEGIC COMMUNICATION

David Hess, Policy Analyst World Nuclear Association



Main types of corporate communication

| Activity | Description |
|-------------------------|--|
| Internal communications | Communication to employees. (Eg, newsletter) |
| Business to business | Communication with suppliers, retailers. (Eg, a trade fair) |
| Investor relations | Communication with financial organisations. (Eg annual report) |
| marketing | Communication with customers (Eg advertising) |
| Media relations | Communication to the press. (Eg interview, press statement) |
| Public affairs | Communication with opinion formers and politicians (Eg private meetings and conferences) |
| Crisis management | Communicating clear messages in fast changing situation or emergency (eg emergency alert via text message) |



What is strategic communication?

"Communication is strategic when it is completely consistent with a corporation's (or organisations) **mission**, **vision**, **values** and is able to enhance the strategic positioning and competitiveness of the organisation."

– Financial Times Lexicon



Communication with the public Public relation models

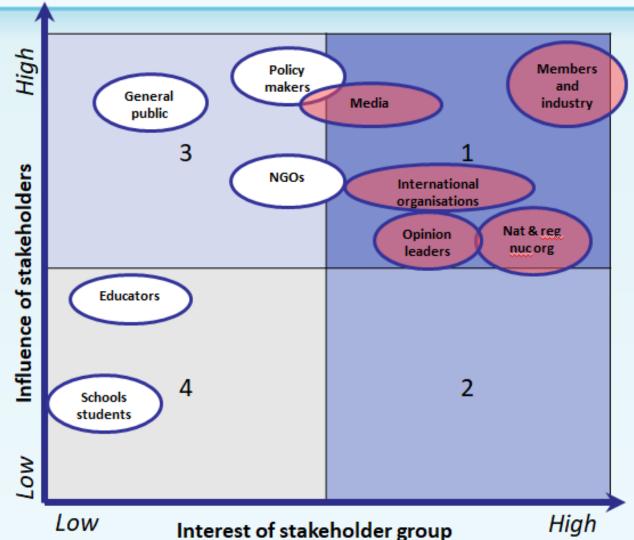
Grunig's Four models of Public Relations

| Model Name | Type of Communication | Model Characteristics Uses persuasion and manipulation to influence audience to behave as the organization desires. Uses press releases and other one-way communication techniques to distribute organizational information. Public relations practitioner is often referred to as the "journalist in residence. | | | |
|------------------------------|-----------------------|--|--|--|--|
| Press agent/ publicity model | One-way communication | | | | |
| Public Information model | One-way communication | | | | |
| One-way asymmetrical model | One-way communication | Uses persuasion and manipulation to influence audience to behave as the organization desires. Does not use research to find out how it public(s) feel about the organization. | | | |
| Two-way symmetrical model | Two-way communication | Uses communication to negotiate with publics, resolve conflict, and promote mutual understanding and respect between the organization and its public(s). | | | |

Two way symmetric communication is considered by many to be 'best practise' but in my experience certain situations may call for different approaches



Developing a communication plan. Stakeholder mapping (example)



- It is vital to be sufficiently detailed and granular when identifying stakeholders
- In my experience many communication strategies are ineffective, because they never not properly identify most important stakeholders

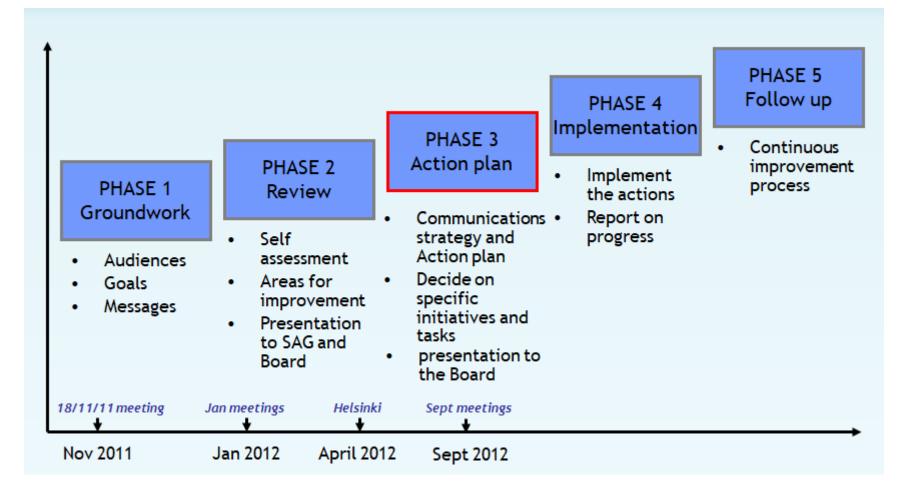


Developing a communication plan. Assigning tools (example)

| Stakeholder | Objectives | Messages | Tools |
|-------------|---------------------------------------|--|---|
| Journalists | Build support for nuclear projects | Nuclear technology has an important role to play: - in quality of life against climate change -better materials - Electricity 24/7 | Information: Reports and Position Statements Dialogue: Stands, meetings, lectures Materials Handouts with photos, videos, business cards Direct phone contact: |
| | | | Social media, email lists |

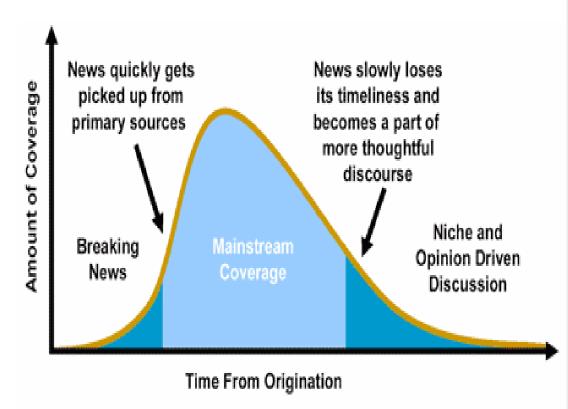


Developing a communication plan. Implement a roadmap (example)





Reaching the public The (old) news cycle



Morgan Stanley: An Update from the Digital World: from Morse Code to blogs, 2004

- News stories tend to grow very quickly.
- Journalists work on very tight deadlines. There is a very small amount of time to influence coverage.
- Most stories don't stay alive for long
- However, the 'opinion discussion' can carry on for a long time and have a large impact on public opinion. They also shape future coverage
- <u>Very important to</u> <u>engage with opinion that</u> <u>affects your organisation</u>



Reaching the public The (new) news cycle

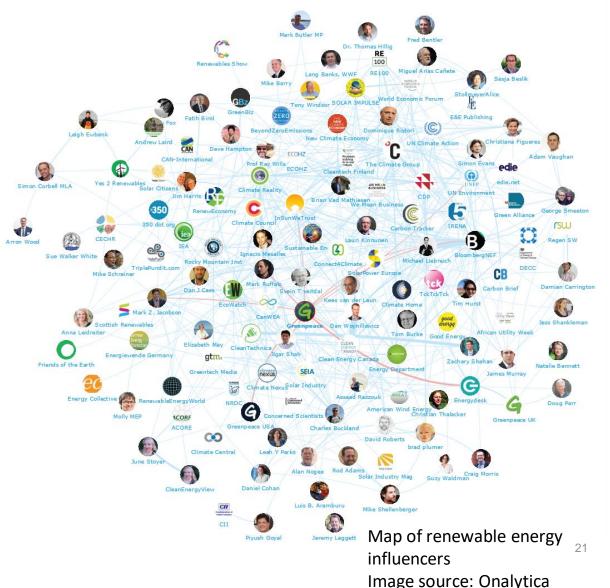
Ellyn Angelotti, Poynter Institute for Media Studies eangelotti@poynter.org @ellynangelotti





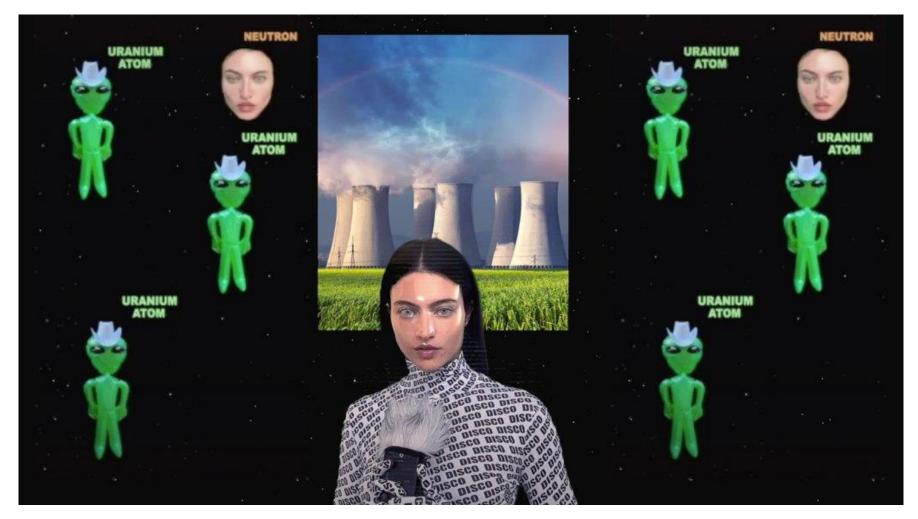
Reaching the public media influencers

- It is hard to reach 'the public' directly
- Social media is powerful communication tool that allows mass communication
- It takes a long time to build up a brand presence
- But it is dominated by 'influencers'





Speaking of influencers... do check out Isabelle Boemeke





Strategic Communication Key points

- Many organisations have to manage the expectations of a broad range of stakeholders and therefore should make use of many different types of communication.
- Strategic communication is vitally important to the success of an enterprise.
- Communicators are important! They are the interface between management and an organisation's stakeholders
- Strategic communication needs careful planning and should be based on 'continuous improvement'. It is important to be pro-active and consistent.
- However, good planning isn't enough. Strategic communication should also be dynamic and reactive to changing events.
- Often the most important step of a communication strategy is correctly identifying your target stakeholder. BE AS SPECIFIC AS POSSIBLE.
- The news media and social media are powerful tools to help reach the general public, but many organisations struggle to use them effectively



Quick quiz.

Q3. Strategic communication from an organisation must be consistent with these three things. What are they?

Q4. What is the most important part of developing a communication plan?

Q5. Who influences your life the most?



Section 3

NUCLEAR COMMUNICATION CHALLENGES AND OPPORTUNITIES



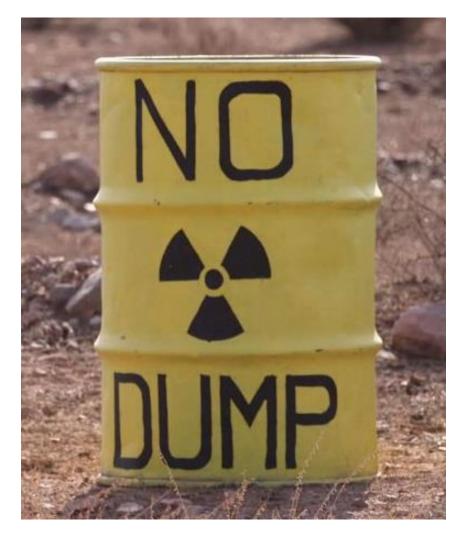
Public attitudes on nuclear vary around the world.

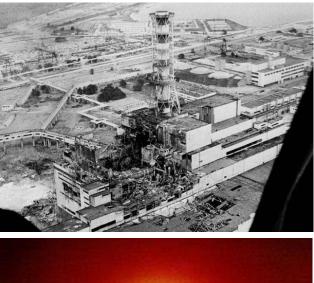
| Strongly Support | | upport | Somewhat Support | | Somewhat Oppose | | Strongly Oppose |
|------------------|-------|----------|------------------|-------------------|-----------------|------|-----------------|
| Total | 12% | | 26% | | 28% | | 34% |
| India | | 28% | | 33% | | 23% | 16% |
| Poland | | % | | 34% | | 17% | 26% |
| United States | - | | 33% | | 31% | | 17% |
| Sweden | - | 6% | 24% | | 25% | | 26% |
| Great Britain | | | 37% | 37% | | 33% | 18% |
| Saudi Arabia | - | <u>í</u> | 22 | % | 28% | | 30% |
| China | | | 32% | | 36% | | 22% |
| Hungary | | | 29% | | 30% | | 29% |
| Japan | | 30 | 5% | | 30% | | 28% |
| South Africa | - | | 25% | | 27% | | 33% |
| Spain | - | | 28% | | 28% | | 32% |
| South Korea | - | | 1% | | 39% | | 22% |
| Russia | - | | 26% | | 28% | | 34% |
| Belglum | - | | 1% | | 31% | | 29% |
| Total | | | 26% | | 28% | | 34% |
| Canada | | | 5% | | 29% | | 34% |
| France | | 27% | | | 40% 28% | | 27% |
| Australia | - | 24 | A | | | | 38% |
| Indonesia | - | 24% | | | 34% | | 33% |
| Brazil | - | 22% | | 24% | | | 45% |
| Turkey | | 18% | | 15% | | 56% | 69/ |
| Argentina | - | 18% | | <u>26%</u> 28% | | 51% | 6% |
| Germany Italy | - | 6% 3% | 20% | 29% | | 61% | (° |
| Mexico | - | | | 9% | | 52% | |
| Mexico | 4% 14 | /0 | | 3/0 | | 32.0 | |

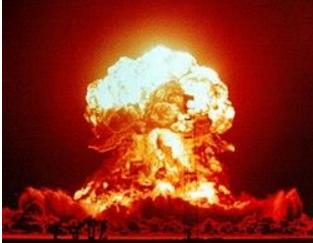
Results of a 2011 poll carried out by Ipsos MORI to assess views on different energy sources. Respondents were asked the question: 'Please indicate whether you strongly support, somewhat support, somewhat oppose or strongly oppose each way of producing electricity (nuclear)'



There are some well-known issues negatively affecting public opinion...

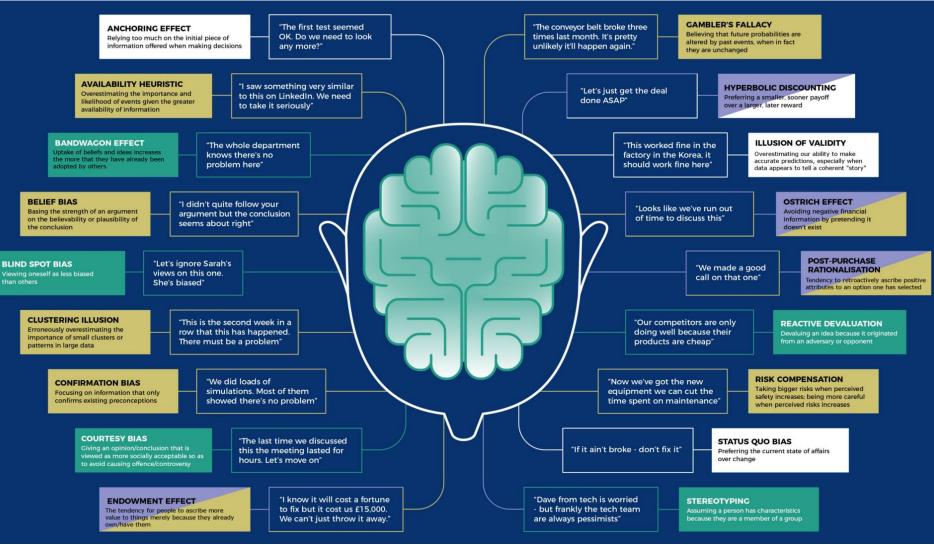








But actually, nuclear risk perception is driven by cognitive biases



David Hess, Policy Analyst World Nuclear Association

Image source: Raconteur. Visual Capitalist



Research shows us that the risks and benefits of nuclear are generally not widely understood

How well informed do you feel about nuclear energy used to produce electricity?

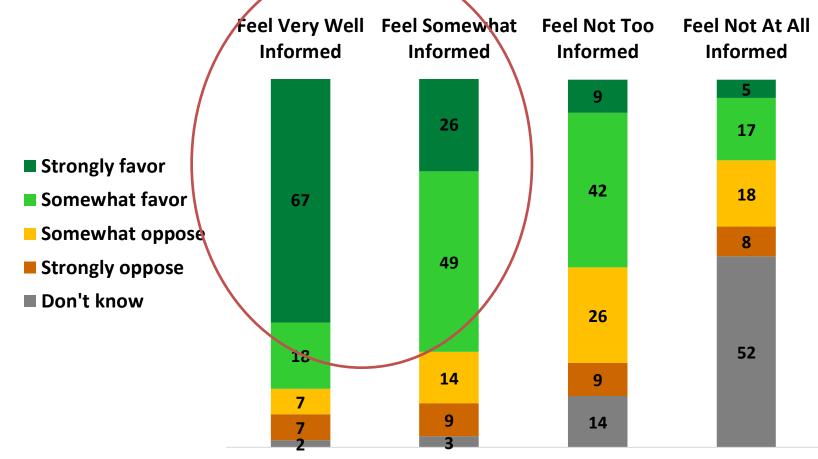
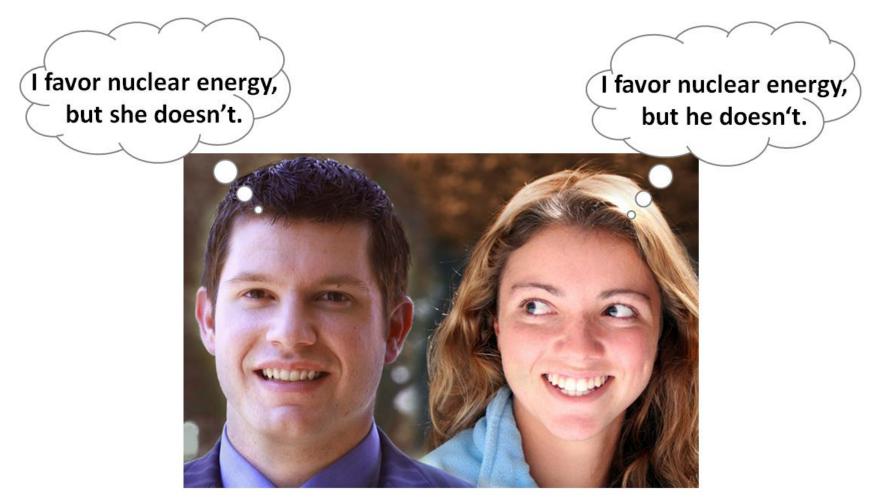


Image source: Bisconti Research for US Nuclear Energy Institute



Research shows us that people tend expect others to have a negative view of nuclear energy





Research shows us that safety messaging can backfire

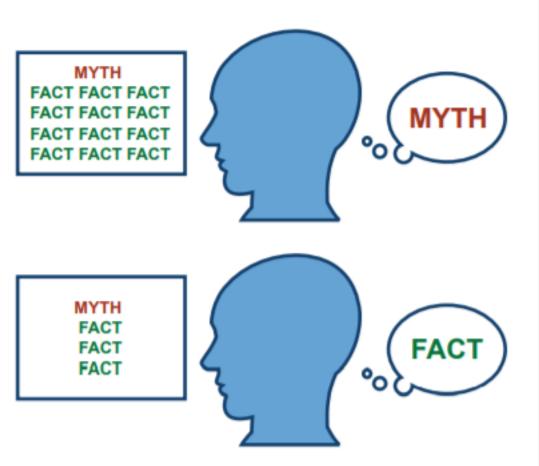
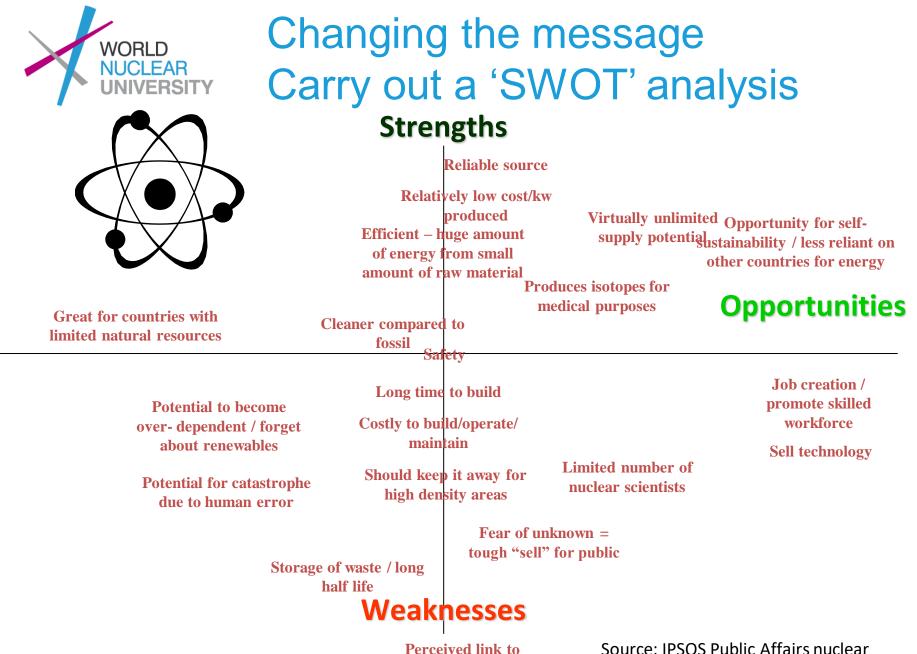


Image source: Skeptical Science, the debunking handbook

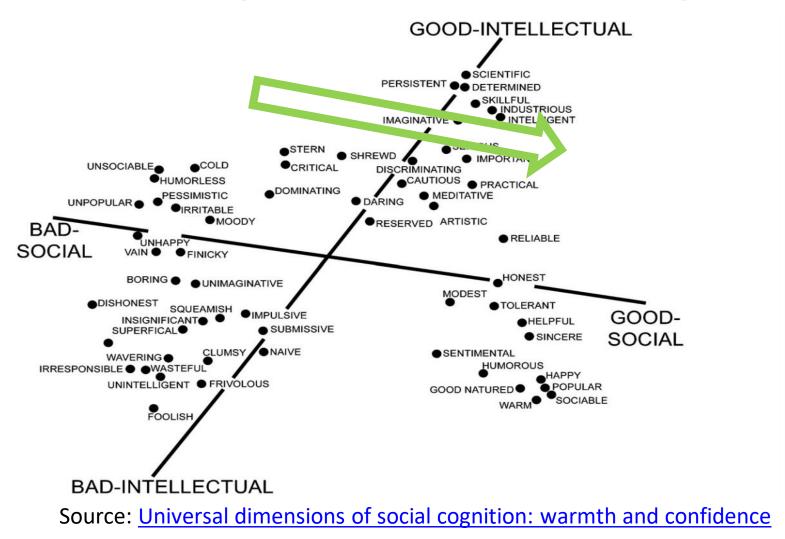
- Nuclear is back-of-themind issue. Most people don't think about it very much
- Proactively mentioning safety can remind people of risks they may not be concerned about
- When reactively addressing safety, it is important not to provide too much information.
 Keep it simple.



Perceived link to weapons

Source: IPSOS Public Affairs nuclear energy SWOT analysis for Canada

Changing the tone. Being empathetic as well as competent



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Aligning values.

What values underpin public perceptions of energy sources in the UK?

- Reduced use of energy. Reduced use of finite resources
- Avoiding waste, efficiency, capturing opportunities
- Environmental protection, nature and naturalness
- Availability and affordability, reliability, safety
- Autonomy and freedom, choice and control
- Social justice, fairness, honesty and transparency
- Long term trajectories, interconnected improvement and quality

Source: UKERC, <u>Transforming the UK Energy System Public</u> <u>Values, Attitudes and Acceptability Synthesis Report</u>



The nuclear community must emphasise benefits more. While it's important to address 'issues' this shouldn't become the dominant narrative





Jobs Healthy environment

Open space







Building and maintaining trust is vital for developing nuclear projects

- Trust is vital for obtaining a social license to construct and operate a nuclear power plant
- But in many countries the populations do not trust the government, NGOs, media or industry
- How can the nuclear community build trust in these countries?
- Answer: by increasing commitment to transparency and public participation via consultation processes

"Openness and transparency, and understanding that the purpose of stakeholder involvement isn't always about gaining complete public acceptance. Rather, its aim is to help people understand the rationale behind the competent authorities' decisions." - <u>Brenda</u> <u>Pagannone</u>, specialist in stakeholder involvement in the IAEA's Nuclear Power Engineering Section



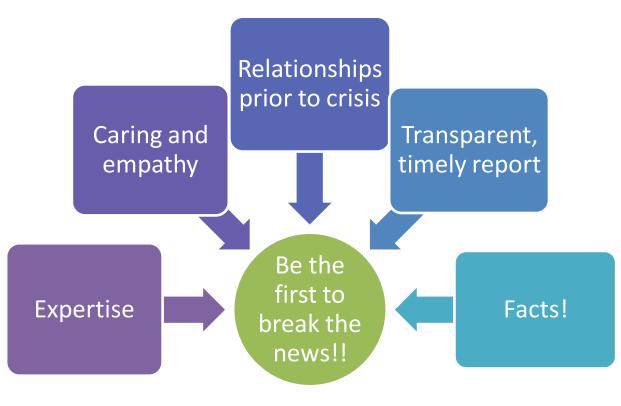
Trust is also essential for managing a crisis



Tony Hayward former BP CEO

During the Deep-Water Horizon disaster in 2010, the BP CEO took part in a sailing regatta.

Warning: this is bad practise!!





Nuclear Communication Key points

- Nuclear energy faces issues with public acceptance globally. Public support is nowhere near as strong as for renewable energy forms. Better public acceptance would greatly increase nuclear energy prospects!!!
- For many people nuclear is a back-of-the-mind-issue. Attitudes are not strong and can often be changed simply by changing the way the question is asked
- While it is true that many people are concerned about nuclear energy because of waste, safety and nuclear weapons, addressing these issues is unlikely to be sufficient to change attitudes. Over-communicating on these issues can even increase public concerns
- Changing attitudes on nuclear energy is likely to be achieved by: listening to stakeholders more, putting more emphasis on the positive attributes of nuclear energy, emphasising shared values with stakeholders, improving 'risk' communication to avoid cognitive traps.
- Building and maintaining trust is essential for gaining a social 'license to operate'
- Part of being a responsible nuclear operators is ensuring accurate and timely communication of nuclear incidents and accidents



Quick quiz.

Q6. What does your best friend think of nuclear energy? (multiple choice)

Q7. If you know someone who disapproves of nuclear, how would you try to change their mind? (multiple choice)



Section 4

HELPFUL NUCLEAR COMMUNICATION RESOURCES



World Nuclear Association Talking Points



- Talking Points is a collection of high-level messages on nuclear energy
- Messages are backed up by facts, and each fact has an authoritative reference.
- It aims to build credibility and consistency in industry communications
- Available to WNA members to use in press and public outreach
- In practise many members choose to use it for other purposes too. For example, staff induction



World Nuclear Association Information Library



- 185+ Information Papers updated regularly
- Publications on industry topics
- Issues, technologies, countries



Average number of updates per week to the information library on the website



Number of page views (millions) on our websites per year

world-nuclear.org

III Facts and Figures

| World Nuclear Power Reactors and Uranium Requirements |
|---|
| Nuclear generation by country |
| Uranium production figures |
| Heat Values of Various Fuels |
| Reactor Database |
| |

Q Country Profiles

| Countries A-F | + |
|---------------|---|
| Countries G-N | + |
| Countries O-S | + |
| Countries T-Z | + |
| Others | + |
| | |

Safety and Security

| Safety of Plants | + |
|----------------------|---|
| Radiation and Health | + |
| Non-Proliferation | + |

Non-power Nuclear Applications

| Overview | |
|--------------------------|--|
| Radioisotopes & Research | |

O Nuclear Fuel Cycle

| Introduction | + |
|---------------------------------------|---|
| Uranium Resources | + |
| Mining of Uranium | + |
| Conversion Enrichment and Fabrication | + |
| Nuclear Power Reactors | + |
| Fuel Recycling | + |
| Nuclear Wastes | + |
| Transport | + |

Senergy and the Environment

- 'Clean Coal' Technologies
- Climate Change The Science

Energy Analysis of Power Systems

Energy Balances and CO2 Implications

- Environment and Health in Electricity Generation
- Policy Responses to Climate Change Renewable Energy and Electricit

Renewable Energy and Electricity

Responding to Global Climate Change: The Potential Contribution of Nuclear Power

AL

Sustainable Energy

1 Uranium Stewardship

Uranium, Electricity and Climate Change

Ourrent and Future Generation

| 0 | uclear Power in the World Today utline History of Nuclear Energy |
|----|---|
| | utline History of Nuclear Energy |
| w | |
| | /orld Energy Needs and Nuclear Power |
| A | ccelerator-driven Nuclear Energy |
| С | ooling Power Plants |
| С | ooperation in Nuclear Power |
| E | lectricity Transmission Grids |
| Fa | ast Neutron Reactors |
| | ternational Framework for Nuclear Energy ooperation |
| Li | thium |
| Μ | Iolten Salt Reactors |
| N | uclear Fusion Power |
| P | lans For New Reactors Worldwide |
| TI | he Nuclear Debate |
| | he Nuclear Renaissance |
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IAEA Nuclear Communicator Toolbox



Press centre Employment Contact



Nuclear Communicator's Toolbox

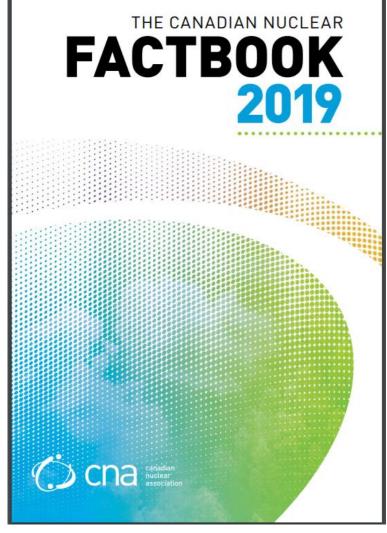
- A Home
- Basics
- > Methods
- > Tools
- InfoCentre
- > Feedback

The Nuclear Communicator's Toolbox has been designed for scientists, engineers and communication professionals who work in the field of nuclear science and technology applications or regulate their safe and secure use. It offers tools to support effective communication on the benefits and risks associated with the use of nuclear technologies. This resource is intended for a variety of nuclear programmes and nuclear activities, including the use of radioactive sources in medicine or industry as well as more complex nuclear fuel cycle activities. Meaningful communication about nuclear matters fosters understanding and demonstrates how science supports society worldwide.

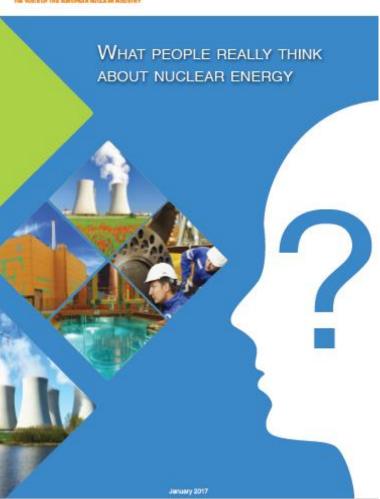
The Toolbox consists of four main sections:



Check out your nuclear trade associations and technical societies











Welcome to the World Nuclear University's Networks for Nuclear Innovation



The World Nuclear University (WNU) is a worldwide network of educational and research institutions engaged in peaceful uses of nuclear energy, radioisotope production and applications of ionizing radiation in medicine and industry. Its founding supporters are World Nuclear Association, IAEA, OECD NEA and WANO. WNU has been providing cutting-edge competence building programmes since 2003 and as of 2020, almost 8000 participants from over 85 countries have attended WNU programmes. This includes 1214 Fellows from 85 countries who have attended the Summer Institute programme.

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P.

Members' area

Not a member yet?

Keep up to date with WNU

Check out all of our upcoming programmes and events.

Keep up to date with our activities through Buzz!

More on NNI

"The Networks for Nuclear Innovation platform on CONNECT facilitates the WNU Alumni network's long-term collaboration and innovation in all areas of the nuclear industry. I greatly anticipate the positive impacts this platform will have on global electricity generation"

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Type here to search



Lastly, consider engaging specialists to improve corporate nuclear comms. Good comms is worth investing in!





David Hess, Policy Analyst V



Email: <u>david.hess@world-nuclear.org</u> Phone: +44 (0)20 7451 1543 Twitter: @6point626 Image source: Some creative genius