

# **What does the public really want when engaging with the nuclear industry?**

5<sup>th</sup> IDG-TP Exchange Forum

Kalmar, Sweden

28 Oct 2014

**My appreciation and respect**





*“The worst thing  
that has ever  
happened is an  
unquestioned  
thought.”*

*--- Byron Katie*



# **Dominating Concept\***

**Ideas that dominate the general thinking in an industry powerfully influence how people think and act.**

\* Source: Edward de Bono, "Serious Creativity – Using the Power of Lateral Thinking to Create New Ideas"

# Example of a DOMINATING CONCEPT

*Being left-handed is a disadvantage  
and should be discouraged.*



# Example of a new DOMINATING CONCEPT

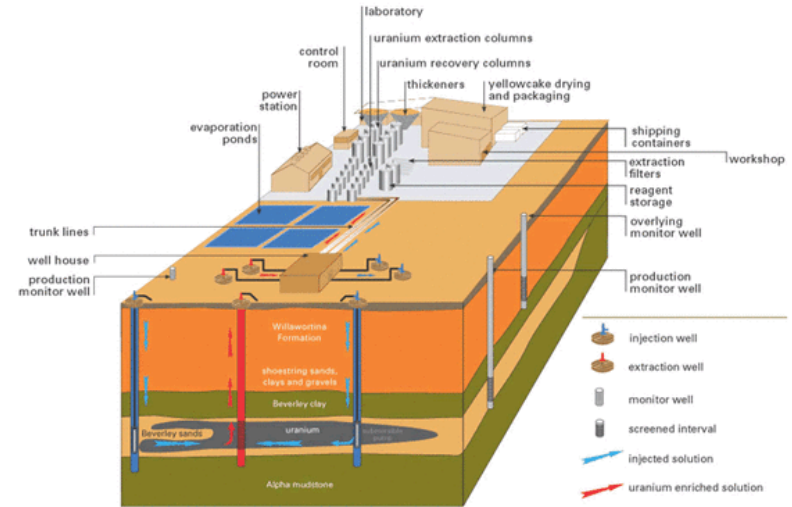


*Being  
left-handed  
is acceptable.*



# Current DOMNATING CONCEPT –

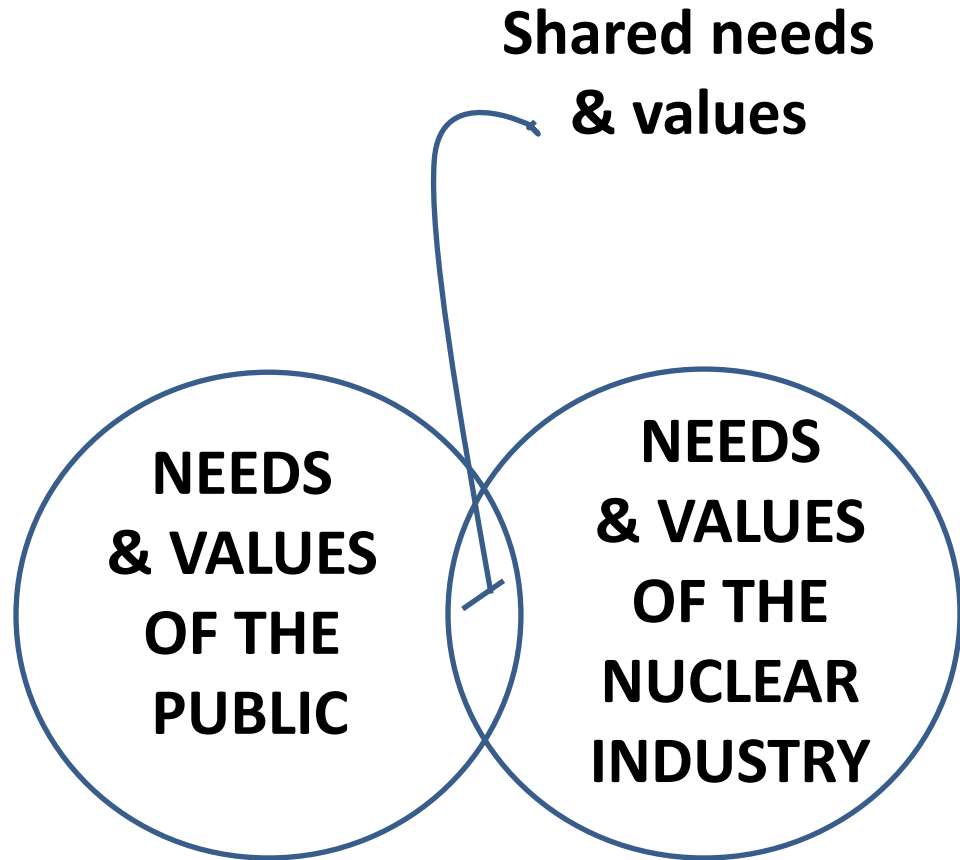
The  
public wants  
scientific  
explanations.



**“Who is the public?”**

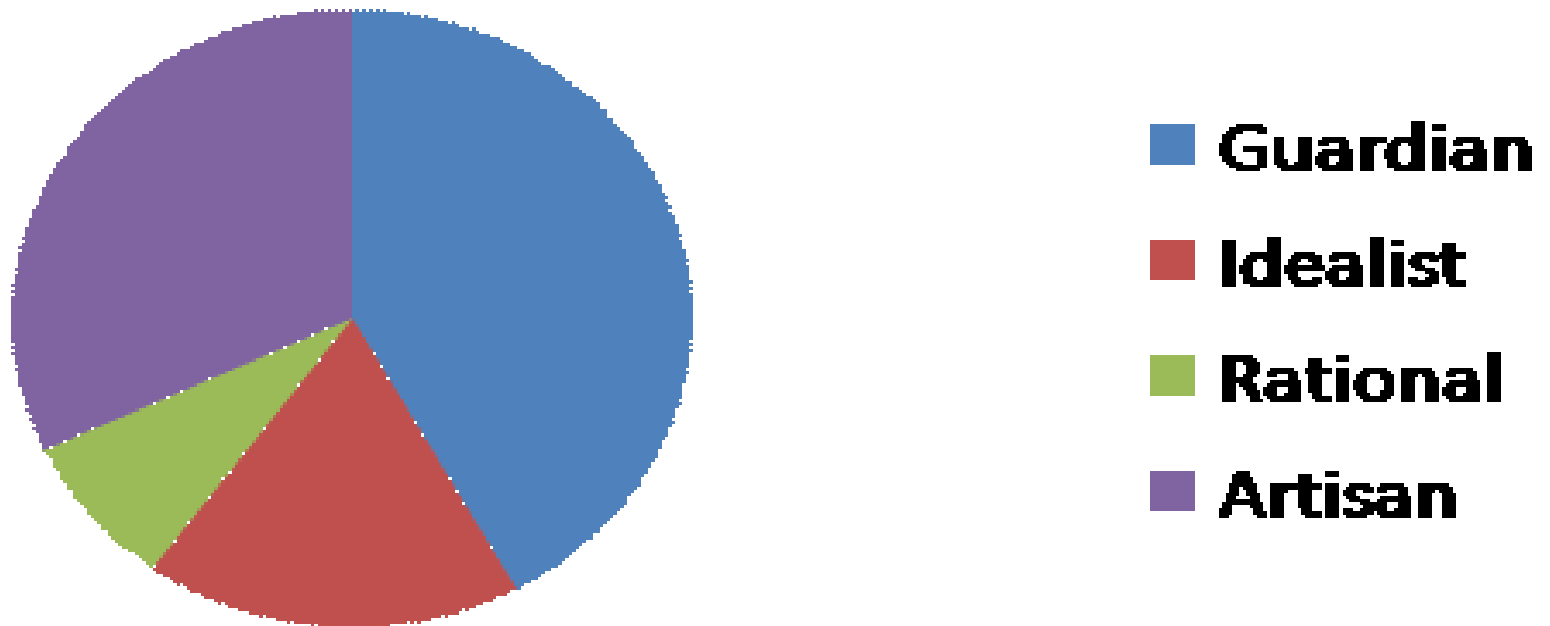
**“What are needs and values of the public?”**

**“How is the nuclear industry, in general, similar or different from the public?”**



What are the needs and values  
of different types of people?

## Keirsey's Temperament Distribution



# GUARDIAN

# ARTISAN

**Percent of  
the Population**

**40 – 45%**

**30 – 35%**

**They need ...**

- Information they can access through the five senses
  - Information that is straight-forward
  - Demonstrated experience
- To learn through direct experience
  - Information that is straight-forward

**They value ...**

- Conserving things as they are
- Concrete results

	<b>IDEALIST</b>	<b>RATIONAL</b>
<b>Percent of the Population</b>	15 – 20%	5 – 10%
<b>They need ...</b>	<ul style="list-style-type: none"> <li>• To engage their intuition</li> <li>• To work with concepts, empathy, emotions</li> </ul>	<ul style="list-style-type: none"> <li>• To engage their intuition</li> <li>• To work with concepts, logic, objectivity</li> </ul>
<b>They value ...</b>	<ul style="list-style-type: none"> <li>• Inspiration</li> </ul>	<ul style="list-style-type: none"> <li>• Competency</li> </ul>

## Temperaments helps illustrate why the public may not respond to scientific explanations

	<b>Guardian and Artisan (70 – 80 percent)</b>	<b>Rational (5 – 10 percent)</b>
<b>They are comfortable with information that ...</b>	<b>Can be experienced or learned through the five senses</b>	<b>Is acquired through the sixth (intuitive) sense</b>
<b>Prefer explanations that are ...</b>	<b>Straightforward</b>	<b>Complex</b>
<b>Irritated by ...</b>	<b>The vague or impractical</b>	<b>Being asked to do the illogical</b>
<b>Uninterested dealing with ...</b>	<b>Complex theoretical issues</b>	<b>Strong emotions</b>

**So what does the public want  
when engaging  
with the nuclear industry?**

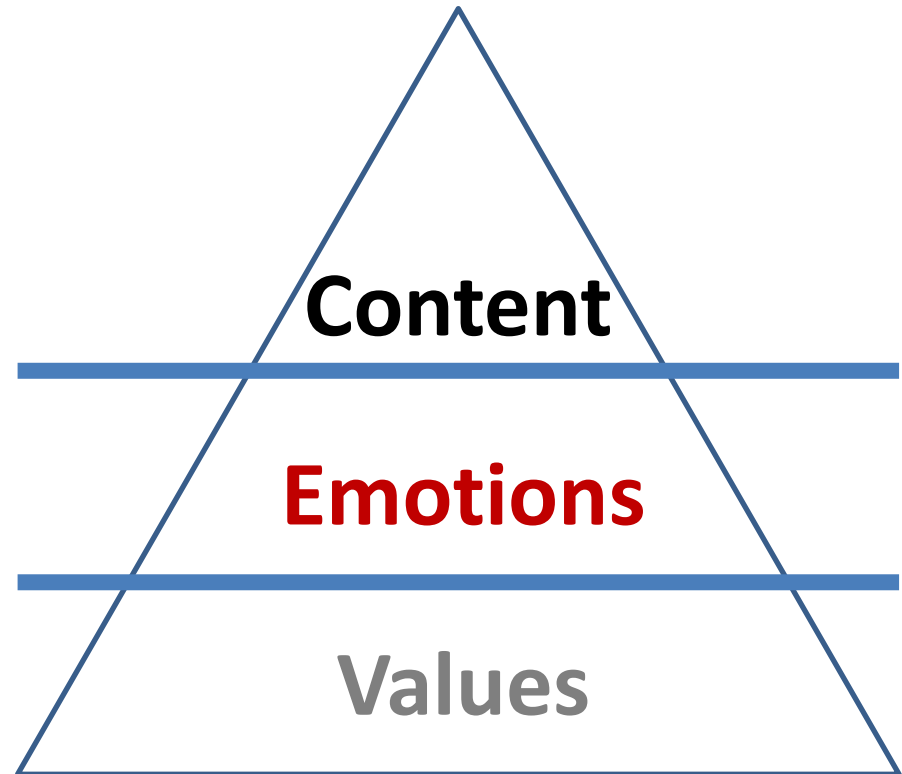
**What are more useful  
Dominating Concepts?**

A more useful  
concept ...

**The public  
wants the  
nuclear industry  
to listen in an  
expanded way.**



Listening  
can occur  
at three  
distinct levels



# Twelve Roadblocks to Communication\*

These are responses commonly used but that need to be avoided in situations in which emotions run high.

- Ordering
- Warning
- Moralizing
- Advising
- **Logic**
- Judging
- Praising
- Name-calling
- **Analyzing**
- **Reassuring**
- Questioning
- Diverting

- **SCENARIO** The public expresses concern that the geological repository presents a risk to the quality of their water source.
- **LOGICAL RESPONSE** “We have analyzed the scientific data, and we find no evidence to support that water quality will be at risk.”
- **RESPONSE THAT ACKNOWLEDGES EMOTIONS** “We recognize the public is afraid there is a risk to the quality of their water.”

- **SCENARIO** The public expresses concern that the nuclear industry has withheld important and relevant information.
- **REASSURING RESPONSE** “We reassure you this oversight was not intentional.”
- **RESPONSE THAT ACKNOWLEDGES EMOTIONS** “We recognize the public is concerned and irritated that important information had not been earlier disclosed.”

- **SCENARIO** The public expresses strong concerns about safety incidents related to the transportation of radioactive materials.
- **ANALYTIC RESPONSE** “It is necessary that the public understand and accept that the field of nuclear science contains multiple uncertainties that cannot be eliminated.”
- **RESPONSE THAT ACKNOWLEDGES EMOTIONS** “The public is concerned about and feels vulnerable to the possibility of transportation-related incidents.”

**Listening for  
emotions does  
not “solve”  
problems,  
but it does ...**

- 1. Meets a  
psychological need  
of the public**
- 2. Allows emotions  
to dissipate**
- 3. Helps the nuclear  
industry not be  
such a target**

**When the  
nuclear industry  
responds with logic  
(scientific  
explanations)  
to emotional  
appeals by the  
public ...**

**The public feels its interests  
are being ignored or  
marginalized**



**Feeling marginalized, the public  
may appeal to other means  
such as the political system to  
have its voice be heard**

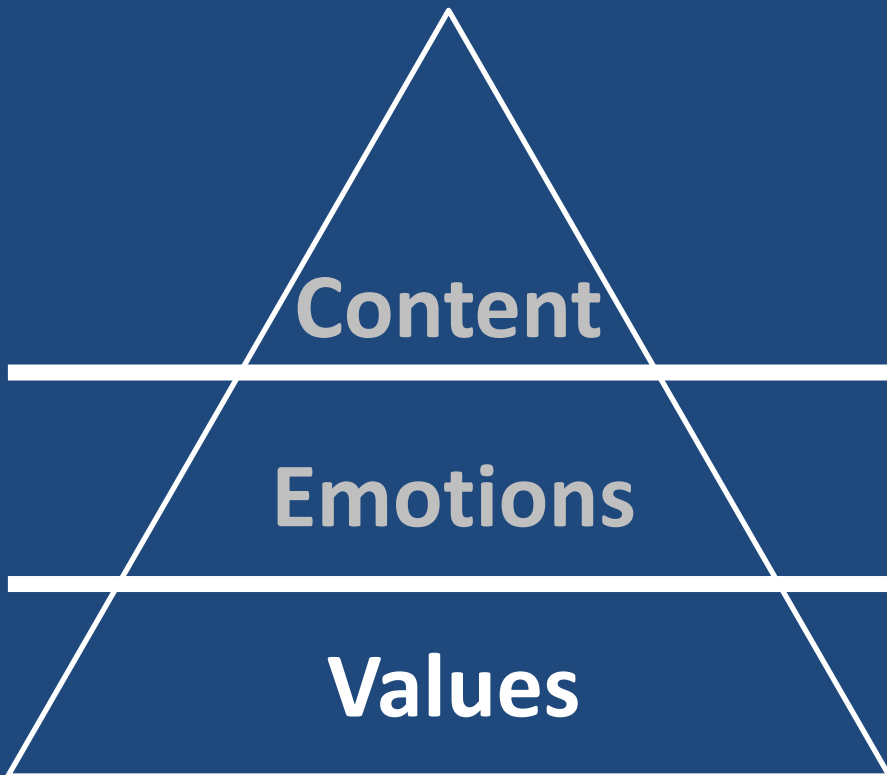


**The political system, for  
example, engages**



**Emphasis shifts away from  
science and technology**

Another useful  
concept ...



**The public  
wants its values  
acknowledged  
and factored  
into the  
decision-making  
process.**



## **Decision-making:**

- Alternative A**
- Alternative B**
- Alternative C**

**VALUES**  
are the foundation for  
decisions.

**VALUES**  
answer the question,  
“Why are we doing  
what we are doing?”

**Acknowledging the  
public’s values provides  
insight and it  
demonstrates a  
level of respect.**

# Behind every concern is a value

**SCENARIO:** The public expresses concern that the nuclear industry has withheld important and relevant information.

- **THE PUBLIC'S VALUES:** Honesty, Expediency
- **THE NUCLEAR INDUSTRY'S VALUES:** Accuracy, Being Vetted

**Values can be more easily factored into decision-making if they are measurable.**

**SCENARIO:** The public expresses concern that the nuclear industry has withheld important and relevant information

VALUES	CLARIFY	Public's Response	QUANTIFY	Public's Response
<p>Honesty, Expediency</p>	<p>What does "honesty" mean?</p> <p>What does "expediency" mean?</p> <p>How would you define these?</p>	<p>Honesty is defined as the open sharing of all relevant information.</p> <p>Expediency is defined as sharing in an immediate manner</p>	<p>What information is relevant?</p> <p>What might you consider "immediate" in terms of a timeframe?</p>	<p>The following information is relevant: ____, ____, ____.</p> <p>Depending on the type of information, "immediate" might be the same day to two or three weeks later</p>

**Another  
more useful  
concept ...**

**The public  
wants to  
develop its  
own truths.**

**TRUTH**  
**CAN BE TOLERATED**  
**ONLY IF YOU DISCOVER IT**  
**YOURSELF**

**FRITZ PERLS**



# ILLUMINATION PROCESS

**Direct in-person  
communication**

**Relaxed setting**

**Attitude of curiosity**

**Purposeful**

**Learning**



**We are more  
than scientists and  
engineers, etc. We are  
“bridge-builders.”**

- 1. The public wants the nuclear industry to listen in an expanded way.**
- 2. The public wants its values acknowledged and factored into the decision-making process.**
- 3. The public wants to develop its own “truths.”**

**"I learned this, at least, by my experiment:  
if one advances confidently  
in the direction of his dreams and endeavors to live the life  
which he has imagined, he will meet with a success  
unexpected in common hours.**

**"If you have built castles in the air, your work need not be lost;  
that is where they should be.  
Now put the foundations under them."**

**--- Henry David Thoreau**



**Thank you for your listening.**