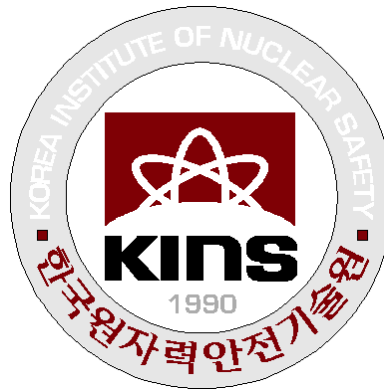


RISK COMMUNICATION

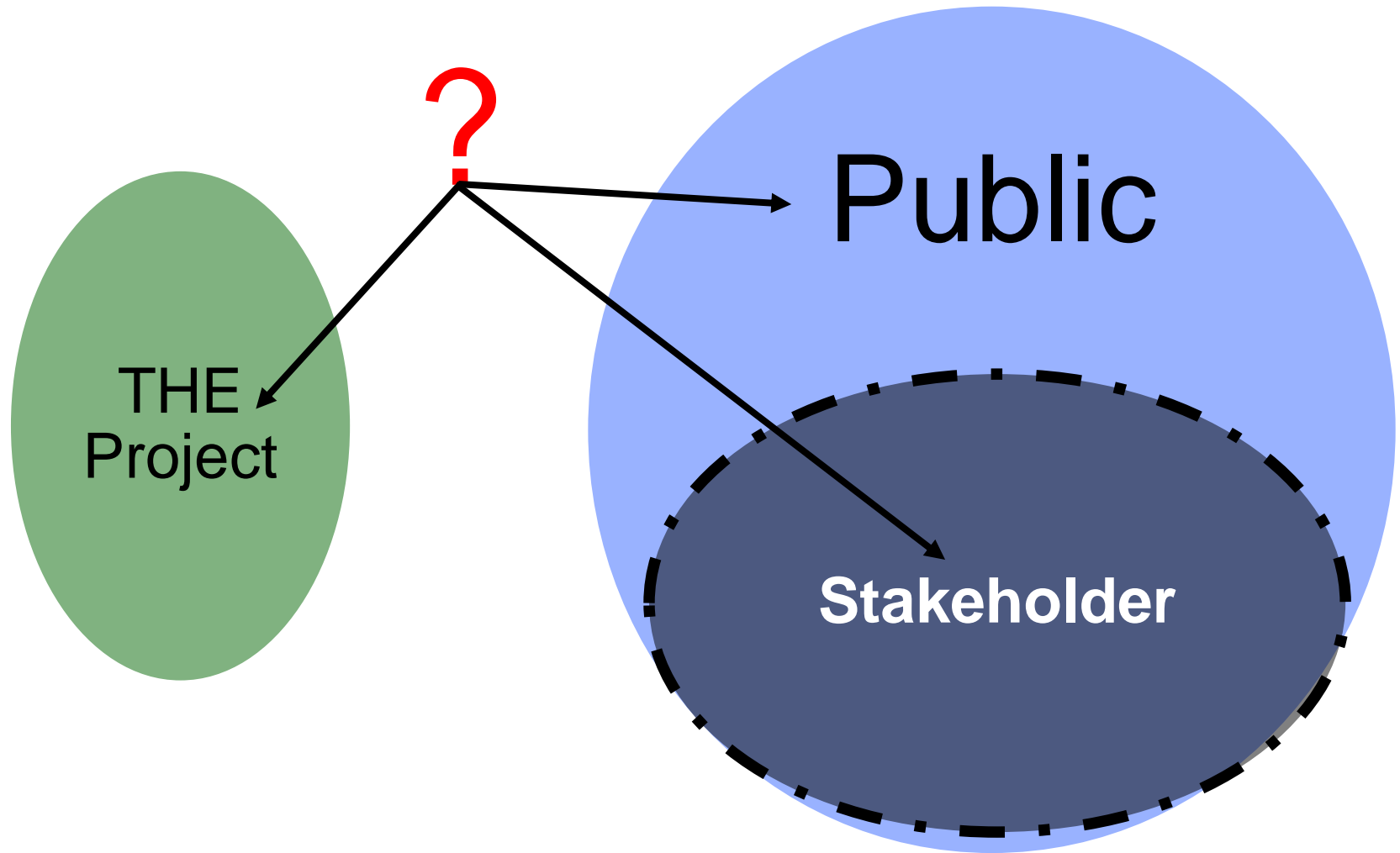


Hokee KIM

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- ❑ **Need to communicate with the public?**
- ❑ **Key issue of communication?**
- ❑ Instructional objectives
 - Towards **YOUR open-mind** in interacting with the public
 - Conceptual background and understanding
 - Basic principles to develop the approaches
- ✓ **Until your faith will move a mountain**

Communication types



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I. INTRODUCTION

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1. Terminologies

□ Communication related

• Public relation

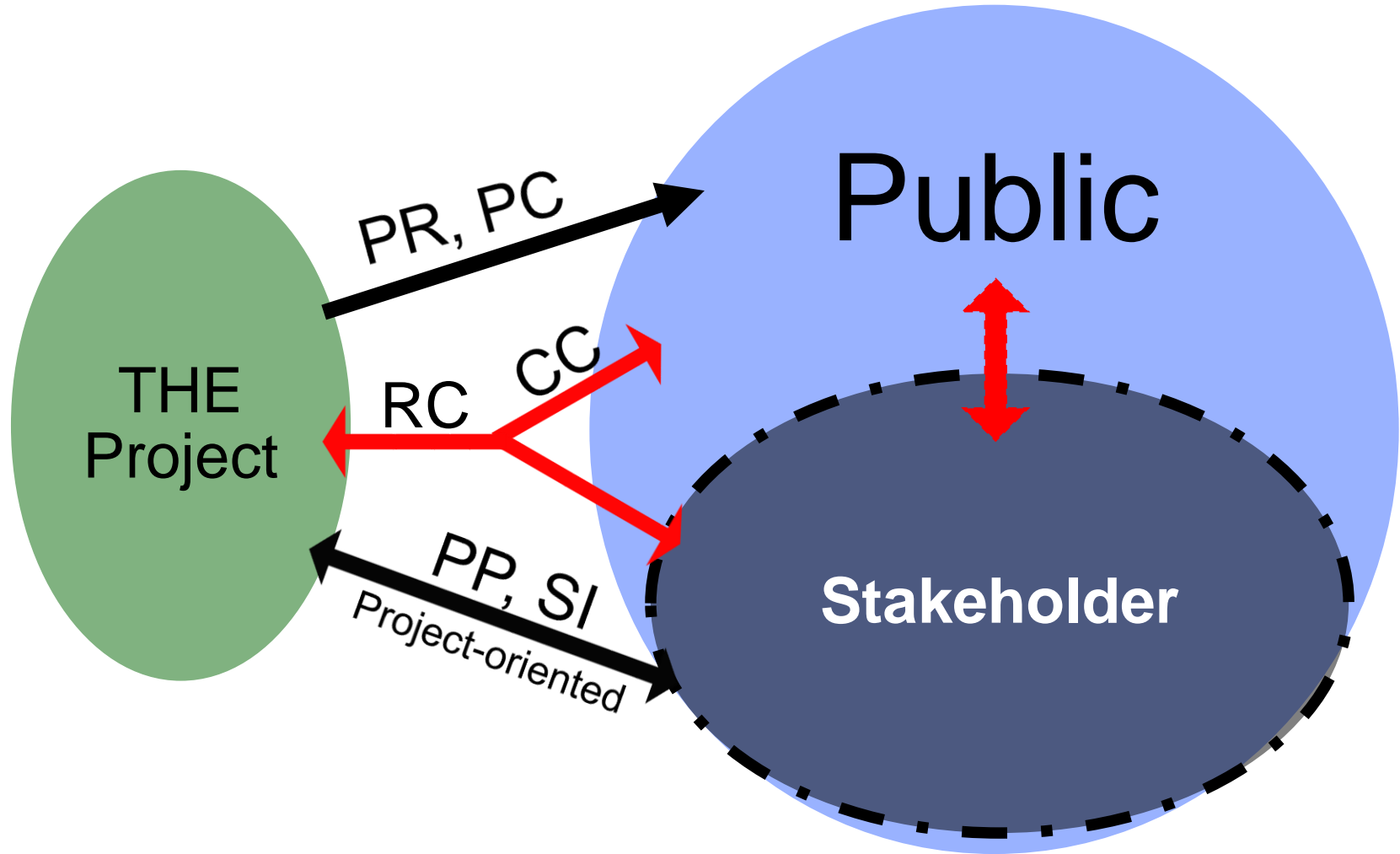
- Practice of managing the spread of information between an individual or an organization and the public
- To inform the public, prospective customers, investors, partners, employees and other stakeholders and ultimately persuade them to maintain a certain view about the organization, its leadership, products, or political decisions

• Public communication

- Communication of ideas by organizations to the broader public
- Happen when individuals and groups engage in dialogue in the public sphere in order to deliver a message to a specific audience

- Public participation (**decision, a 2-way communication or interaction**)
 - Seek and facilitate the involvement of those potentially affected by or interested in a decision
 - The principle that those who are affected by a decision have a right to be involved in the decision-making process
 - Sometimes used interchangeably with the concept or practice of stakeholder engagement and/or popular participation
- Stakeholder engagement or involvement
 - Process by which an organization **involves people who may be affected** by the decisions it makes **or can influence** the implementation of its decisions
- **Risk communication** (**wellbeing**)
 - Public communication in **health** or **environment related areas**, to meet the right-to-know of community and **the principle**
 - **Risk communication** during the routine decision-making process of the project
 - **Crisis communication** during a situation of emergency

Communication types



□ General background

- Institutions and social actors **involved in managing risk**
 - Cope with the problem of legitimating their decision and policies in a political arena
- 2 opposing camps in society:
 - One supporting and promoting large technologies and further economic growths
 - The other opposing large-scale technologies, supporting conservation efforts, and favoring a zero or low growth
- Rely on **trust and credibility** for their communication effort to impress the audience or even to influence their attitudes
 - Credibility of information sources is the major social resource **to shape social risk policies and enhance social power**

- Confidence
 - Denote the **subjective expectation** of receiving trustworthy information from a person or an institution
 - Performance of the source and its image with respect to its fulfilment of tasks and communicative functions are major attributes
 - ✓ Based on **a good past record** of trust-building communication
- Trust in communication
 - Refer to the **generalized expectancy**
 - That a message received is true and reliable, and
 - That the communicator demonstrates competence and honesty by conveying accurate, objective, and complete information, or
 - An expectation or belief
 - That one can rely upon another person's actions and words and/or
 - That person has good intentions
 - ✓ Cannot evolve if social actors experience **inconsistent responses** from others in similar or even identical situations

- Credibility

- The **degree of** shared and generalized **confidence** in a person or institution based on their perceived performance record of trustworthiness
- Both trust and confidence are necessary conditions for credibility
- A product of **long-term evidence and commonly shared experience** that a source is competent, fair, flexible to new demands, and consistent in its task performance and communication efforts
- Receiver's perception of competence or expertise combined with trustworthiness

✓ **TRUST**, *one major objective in risk communication*

How to build TRUST?

□ 5 components of trust

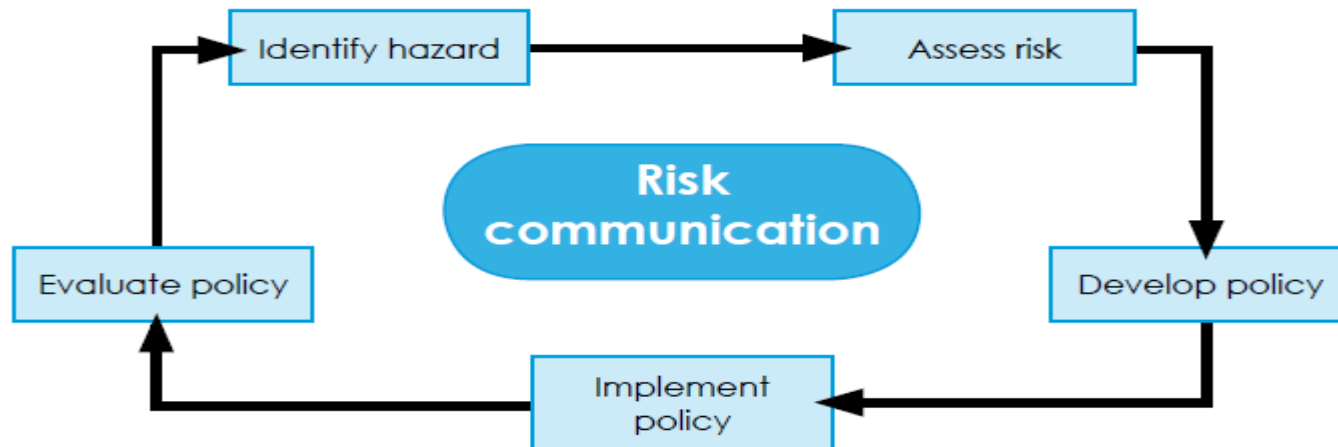
- Perceived competence
 - Degree of **technical expertise** assigned to a message or a source
- Objectivity
 - **Lack of biases** in information as perceived by others
- Fairness
 - Acknowledgement and adequate representation of **all relevant points of view**
- Consistency
 - Predictability of arguments and behavior based on **past** experience and **previous** communication efforts
- Faith
 - Perception of "**good will**" in composing information

2. Definitions of risk & crisis communication

□ Risk communication

- Covello, von Wintfeldt & Slovic (1986)
 - Any purposeful exchange of information about health or environmental risks between interested parties
 - Act of conveying or transmitting information between parties about;
 - (a) Levels of the risks
 - (b) Significance or meaning of the risks
 - (c) Decisions, actions, or policies aimed at managing or controlling the risks
 - Interest parties include government, agencies, corporations, and industry groups, unions, the media, scientists, professional organizations, public interest groups, and individual citizens
- Roharmann (2008)
 - A social process by which people become informed about hazards, are influenced towards behavioral change, and can participate in decision-making about risk issues in an informed manner

- US National Research Council's Committee on Risk Perception and Communication (1989)
 - An **interactive process of exchange** of information and opinion among individuals, groups and institutions.
 - It involves multiple messages about the nature of risk and other messages, not strictly about risk, that express concern, opinions, or reactions **to risk messages**, or to legal and institutional arrangements **for risk managers**
- ✓ Risk communication is **an essential and integral part of risk management**
 - A cyclical process with risk communication as **a core component** which underpins the entire process



- European Centre for Disease Prevention and Control (ECDC, 2013)
 - An exchange of information about the ‘health risks caused by environmental, industrial, or agricultural processes, policies, or products among individuals, groups and institutions’
 - A dynamic and interactive process involving exchanges between different groups of key players and audiences
 - The principle of involving the public in matters of risk, whether it is risk assessment, decision making, management or communication, marks one of the crucial distinctions of risk communication, in theory and practice, from crisis communication
 - Effective and responsible risk communication encourages working relationships amongst all interested parties, including the public

□ Crisis communication

- **Narrower concept** that involves “the exchange of risk-relevant and safety information **during an emergency situation**”
 - Crisis
 - Dynamic, unexpected **event** that involve a significant threat, ongoing uncertainty, and usually greater intensity than longer-term risk situations
 - Require immediate and effective actions to lessen harm
 - A crisis is a risk manifested (Heath, 2010)
 - Emergency
 - A **situation** that requires immediate attention, and can turn into a disaster if left unchecked
- Communication for crisis that have a time urgency and extremely dynamic component
 - ✓ *Historically focused on image and reputation restoration*

□ In summary

- Risk communication deals with might happen (or has already occurred), whereas crisis communication addresses what is currently happening (P. Sandman)
 - Risk communication is based on **ongoing projections and calculations** of the potential for future harm
 - **Risk messages** emerge long before a crisis event occurs, and aim to reduce the likelihood of a crisis event occurring in the long term
 - Crisis communication is a **spontaneous and reactive process**, often occurring in unexpected emergency situations
 - Crisis communication messages are based on **what is known** and **not known** about a current state or condition
 - Magnitude, immediacy, duration, control, cause, blame, consequences
- ✓ (by ECDC)

3. Objectives and obstacles

- Objectives of risk communication
 - Enlightenment function
 - To improve **risk understanding** among target groups
 - Right-to-know function
 - To **disclose information** about hazards to potential victims
 - Attitude change function
 - To legitimate risk related decisions, to improve the acceptance of a specific risk source, or to challenge such decisions and reject specific risk sources
 - Legitimation function
 - To explain and justify risk management routines and to enhance the trust in the competence and fairness of the management process

- Risk reduction function
 - To enhance **public protection through information** about individual risk reduction measures
- Behavioral change function
 - To encourage **protective behavior or supportive actions** toward the communicating agency
- Emergency preparedness function
 - To provide **guidelines for emergencies** or behavioral advice during emergencies
- Public involvement function
 - To **educate decision makers** about public concerns and perceptions
- Participation function
 - To assist in **reconciling conflicts** about risk-related controversies

- Obstacles in creating the necessary climate and culture for risk communication (Covello and Sandman, 2001)
 - Habit and inertia of old behavior
 - The fact that technical experts tend to like clear boundaries and logic, not emotion
 - The belief that the public is irrational and hysterical
 - Discomfort with empowering the public by bringing them into the decision-making process
 - The belief - - - that they are doing good and should not be challenged so much by different kinds of information and opinions
 - The personal discomfort that comes with significant change
 - The level of personal and/or organizational commitment required to make significant change
- ✓ People care about the decisions you make, but they care even more about the process you used along the way (Kim and Mauborgne, 2003)

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1. History of risk communication

□ Risk

- The potential of losing something of value, such as physical health, social status, emotional well being or financial wealth
- Intentional interaction with uncertainty, which is potential, unpredictable, unmeasurable and uncontrollable outcome

- From early investigations into risk perceptions
 - The public often has much different viewpoints about risk than do experts
 - Least concerned about hazards that most concerned scientific experts
 - **Most concerned about risks** of least concern to scientists
 - Focused on developing procedures to **convey "actual" risk** to consumers who held *uninformed and sometimes irrational perceptions* of risk
 - Become aware of
 - Many limitations of technical risk assessments and risk management practices
 - **Value orientations** can be legitimate criteria for establishing technology policy: *ethical rather than scientific or efficient*
- Paradigm shift
 - From a focus upon "**educating** an irrational public"
 - To one of "**exchanging** information and opinions" among the many stakeholders in technology policy making

- Risk estimation by technical experts since 1950s
 - Risk = probability of occurrence X magnitude of damage
 - ✓ Up to now in the fields of nuclear, aerospace and chemical industries
- In the 1970s
 - Began to establish general principles of public risk acceptability
 - Usually based on mortality statistics and the **de minimis risk principle**
 - If a risk can be effectively lowered to less than one additional fatality per million citizens, the risk is effectively zero
 - ✓ Such an approach was uniformly unsuccessful, as evidenced in the **nuclear industry**

- In the 1980s & 1990s, Risk perception studies
 - Risk perception **depends on the familiarity** of the risk
 - Perception of risk is unique to each person and is rooted in his values, education, experiences, and stake in the outcome
 - Covello and Sandman, 2001; Douglas, 1992; Slovic, 1999
 - ✓ **Subjective judgment** that people make about the severity and/or probability of a risk
 - Risk = hazard + outrage (Sandman, 1987)
 - Hazard: technical component of risk, the calculated probability of a dangerous event and its severity
 - Outrage: **emotional response to hazard analysis**, the level of concern that people feel regarding a real or potential hazard
 - *Principal determinant of perceived hazard*
 - Outrage factors: factors that affect how risk is perceived
 - ✓ Other expressions
 - Perceived risk = Estimated risk x Outrage² (Hoffman et al. 2010)
 - Risk = Hazard x Exposure x Outrage (Exeter, 2012)

- The public tends to pay less attention to the calculated hazard and are significantly influenced by **outrage factors** (Covello and Sandman, 2001)
- Some outrage factors
 - **Involuntary** (out of their control)
 - Artificial and industrial
 - Exotic and/or unfamiliar
 - Hard to understand (not self-explanatory)
 - Memorable
 - Dreaded
 - Potentially catastrophic in time and space
 - Unknowable (uncertainty)
 - Having **delayed effects** (some effects may not be evident immediately)
 - **Affecting future generations** (because there is some uncertainty about long-term effects)

- Having identifiable victims (reported cases of harm)
- Potentially affecting them such that they have a personal stake (neighbors who believe they are affected)
- Being controlled by "the system" or others
- Unfair (the neighbor only gets some added risk)
- Associated with untrustworthy people (**government officials and those who have a financial interest** are perceived as less trustworthy)
- Operating by a closed process (communities around sites too often find the process closed and difficult to understand)
- Having **more media attention** (media stories heighten local interest and, if they report opposition, public concern tends to increase)
- Having limited or no visible benefits

✓ *Examples?*

□ 4 stages of risk communication (Covello & Sandman)

① Ignore the public

- Pre-risk communication stage
- Common before the mid-1980s

② Improve explanations of data, especially data regarding risk

- This, if used alone, is usually part of the "Decide-Announce-Defend (DAD)" approach
- ✓ Fundamental dilemma: The risks that kill people and the risks that alarm them are often completely different

③ Engage in dialogue

- Two way communications and sharing of information and understanding, based on the public's definition of risk, "hazard + outrage"

- 7 cardinal rules of risk communication
 - Accept and involve the public as a legitimate partner
 - Listen to the audience
 - Be honest, frank and open
 - Coordinate and collaborate with other credible sources
 - Meet the needs of the media
 - Speak clearly and with compassion
 - Plan carefully and evaluate performance

④ **Affect change** in individual and/or organizational values and culture, **involving the public as a full partner**

- “Cutting edge“ of risk communication
 - Strategies for **building consent** differ significantly from tactics for **minimizing the opposition** (Potapchuk, 1991)
 - To maximize the effectiveness of risk communication, **improve** explanation of data, **engage in dialogue**, and **affect change** in individual and organizational values and culture (Covello and Sandman, 2001)

✓ Risk communication towards public governance

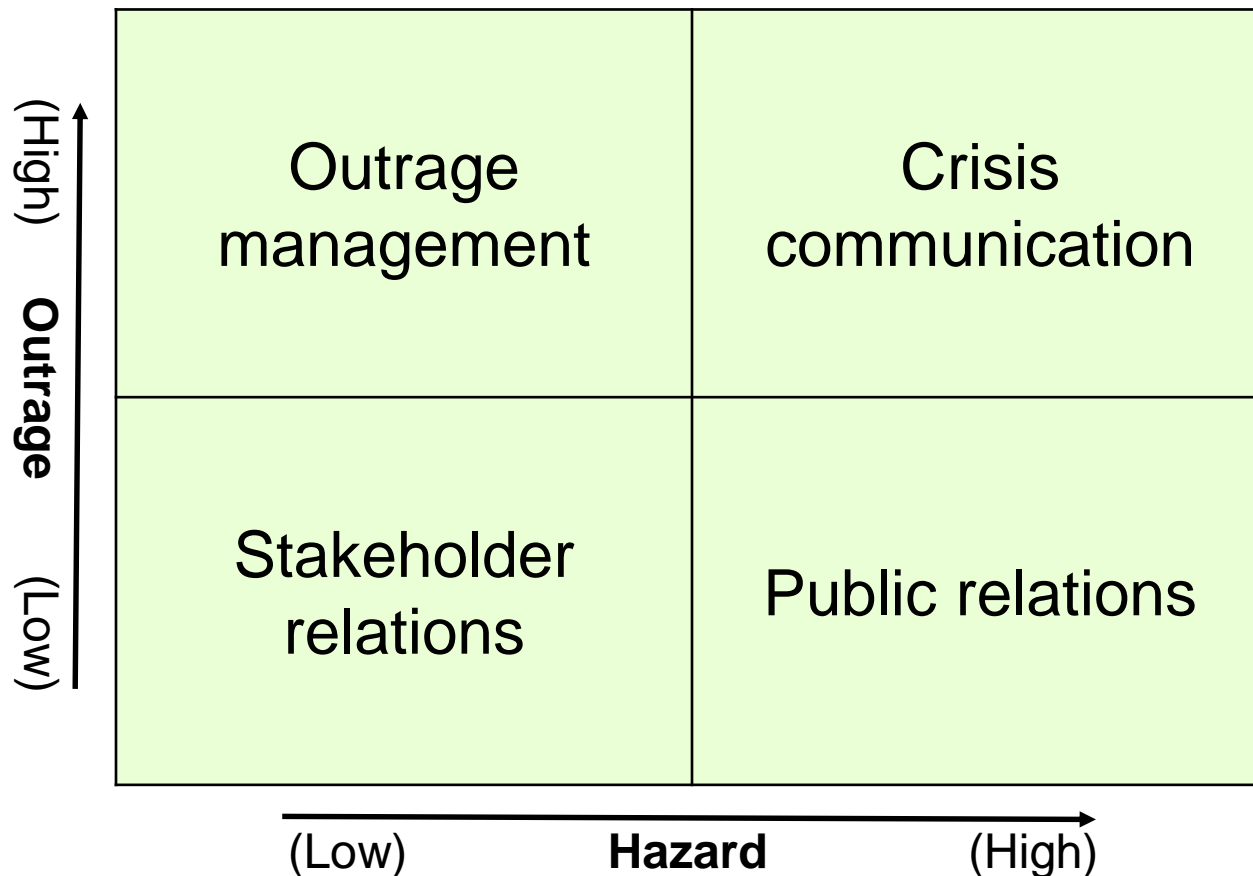
※ *Note: Public governance of public-private partnerships*

Governance refers to all processes of governing

- Whether undertaken by a government, market or network,
- Whether over a family, tribe, formal or informal organization or territory, and
- Whether through laws, norms, power or language

2. Theories of risk communication

- 4 kinds of risk communication (Sandman, 2003)



- **Public relations:** high hazard, low outrage
 - Apathetic and inattentive audience
 - Need to package everything into short sound bites
 - Provoke more outrage for serious hazards
 - Few concerns, reservations or objections of audience
- **Stakeholder relations:** medium hazard, medium outrage
 - Interested and attentive audience, neither too apathetic nor too upset to listen
 - Discuss the technical details openly and rationally, explaining views and responding to questions and concerns
 - Dialogue in person, but perhaps inefficiency of one-on-one dialogue
 - The easiest communication environment

- **Outrage management:** low hazard, high outrage
 - Outraged audience, largely at you, ‘fanatics’
 - Reduce outrage by listening, acknowledging, apologizing, sharing control and credit
 - In-person dialogue, in which audience does most of the talking
 - At least you have their attention, though it is hostile
- **Crisis communication:** high hazard, high outrage
 - Huge and very upset audience, mostly fear and misery rather than anger
 - Help the audience bear its fear and misery, by avoiding over-reassurance, sharing dilemmas, being human and empathic, providing things to do, and acknowledging uncertainty
 - Communication directed through mass media, and dialogue in person to the extent possible
 - Though outrage is very high, it is not directed at you. Any anger at you is put aside until the crisis is past

□ 4 theoretical models of risk communication

(Covello et al, 2001)

- ✓ Describe how risk information is processed, how risk perceptions are formed, and how risk decisions are made

• Risk perception model

- Many factors affect how risks are perceived, and these factors can alter risk perceptions in varying degrees
 - Play a large role in determining levels of concern, worry, anger, anxiety, fear, hostility, and outrage, which in turn can significantly change attitudes and behavior
- Individual's perception of risk is based on a combination of hazard and **outrage**
- To plan and organize effective risk communication strategies, **understanding of interested or affected parties is necessary**
- ✓ The gaps between risk perceptions and reality often become wider

- **Mental noise model**

- Focus on how people process information under stress and how changes in the way information is processed affect communication
- In a state of high concern because people perceive a significant threat, their ability to process information effectively and efficiently is severely impaired
- The emotional arousal and/or mental agitation generated by strong emotional feelings create mental noise
- Provided a conceptual map or mental model to help people understand the risk, the information provided by risk communicators is more likely to be understood and accepted
- ✓ People have difficulty hearing, understanding and remembering information, and focus most on what they hear first

- **Negative dominance model**

- Relationship between negative and positive information is asymmetrical, with **negative information receiving significantly greater weight**
- In high-concern situations, people put greater value on losses and other negative information or outcomes than on gains or positive information and outcomes
- Negative messages should be counterbalanced by a larger number of positive or solution-oriented messages
- Risk communications are most effective when they focus on **what is being done** rather than what is not being done
- ✓ People often focus more on the negative than on the positive

- **Trust determination model**

- Only when trust has been established can other goals, such as education and consensus building, be achieved.
- Trust can only be built over time and is the result of ongoing actions, listening, and communication skill
 - ✓ Proactive community outreach
- 4 trust determination factor pairs:
 - Caring and empathy
 - Dedication and commitment
 - Competence and expertise
 - Honesty and openness
- ✓ People want to know that you care before they care what you know

※ *Risk communication templates*

- Rule of 3 template
 - Three key messages
 - Key message repeated three times
 - Each message supported by three supporting messages
- Primacy/Recency template
 - People tend to remember the first and most recent information they hear
 - When establishing three points, state the most important first, least important second and the second most important last
- 27/9/3 template or sound bite rule
 - 27 words, 9 seconds, 3 messages
- IDK (I don't know) template
 - Repeat question (except negative)
 - Say you don't know/Can't answer/Wish you could answer
 - Give the reason(s) why you don't know or can't answer
 - Indicate follow up with deadline
 - Bridge to what you can say, such as core messages

- AGL-4 template
 - Simplify the message so that all audiences can Understand it
- 1N=3p template
 - one negative = three positives
 - Avoid “No, Not, Never, Nothing, None”
- CCO template
 - Compassion, Conviction, Optimism
- Guarantee Template
 - “What I can tell you is...”
- Interrogation Template
 - Round One: Offer 27/9/3 response
 - Round Two: Say “Let me repeat”
 - Round Three: Bridge to more details, to another topic, or ask if they are more questions
- False Allegation Template
 - Don’t repeat the allegation
 - Indicate that the opposite of the allegation is valuable to you
 - Bridge to three facts that relate to the opposite

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1. Stakeholder involvement

□ Definition of stakeholder

- IFC (International Finance Corporation)
 - Persons or groups:
 - Who are **directly or indirectly affected** by a project, as well as
 - Those **who may have interests** in a project and/or **the ability to influence** its outcome, either positively or negatively
 - May include:
 - Locally affected communities or individuals and their formal and informal representatives,
 - National or local government authorities, politicians, religious leaders, civil society organizations and groups with special interests,
 - The academic community, or
 - Other businesses

- IAEA Handbook on Nuclear Law
 - Owing to the differing views on who has a genuine interest - - -, **no authoritative definition of stakeholder has yet been offered**, and **no definition is likely to be accepted by all parties**.
However, stakeholders have **typically included**: the regulated industry or professionals; scientific bodies; governmental agencies - - - whose responsibilities arguably cover, or 'overlap' nuclear energy; the media; the public (individuals, community groups and interest groups); and other States - - -
 - ✓ Statutory stakeholder: those organizations and bodies that are **by law** required to be involved in any planning, development or operational activity
 - ✓ Non-statutory stakeholder: those to be **impacted**, directly or indirectly, by it
 - ✓ Organizations and individuals who feel in whatever way impacted or affected by an activity, thus may be **self-selected**

- INSAG-20
 - Those who have a specific interest in a given issue or decision, including the general public
 - Internal stakeholders are those involved in the decision making process
 - External stakeholders are most often affected by the potential outcome of the project, either directly or emotionally
- OECD/NEA forum on stakeholder confidence
 - Any actor-institution, group or individual with an interest in or a role to play in the societal decision making process
- ✓ A broad definition
 - Anyone who feels impacted by an activity, whether physically or emotionally
 - Difficult to identify all relevant stakeholders in particular circumstances, as some stakeholders may be self-selecting and situational

- Stakeholder engagement (involvement)
 - The process by which an organization involves **people who may be affected** by the decisions it makes or **can influence** the implementation of its decisions
 - They may **support or oppose** the decisions, be **influential** in the organization or within the community in which it operates, **hold** relevant official positions or be **affected** in the long term
 - Tool used by **mature private and public sector organizations**
 - To develop understanding and agree to solutions on complex issues or issues of concern
 - An **underlying principle** is that stakeholders have the chance to influence the decision-making process
 - This differentiates stakeholder engagement **from communications processes** that seek to issue a message or influence groups to agree with a decision that is already made
 - ✓ *Involvement implies **doing to** vs. engagement implies **doing with***

- **Conditions** for a successful stakeholder engagement involvement
 - ① Start with a **critical review** of the organization's own performance
 - ② Design an integrative risk management and communication program that ensures a continuous effort to communicate with the most important stakeholders
 - ③ Define the objective and the strategy to achieve
 - ④ Define the expected outcome of the process
 - ⑤ Tailor stakeholder involvement **according to the needs of the targeted audience** and not to the needs of the information source
 - ⑥ Adjust and modify the stakeholder involvement program for **feedback and changes in values and preferences**
- ✓ *Be clear about the process, the information sought, the objective and the type of debate*

□ **Advantages** of stakeholder involvement

- Enhance the transparency
 - With a clear documentation of how **stakeholders** were selected, how their **views** were taken into account, what kind of communication **procedures** were employed, what kind of **methods** for reaching agreements were used, and how the **results** will be used
- Enhance competence
 - By ensuring that **state of the art in knowledge of the risk issue** is considered and that the **participants are made literate** with regard to the risk issue
- Enhance fairness
 - In terms of **equal** speaking and debating opportunities and the **adequate** representation of the interests
- Enhance the overall efficiency
 - By ensuring a **balanced proportion** between participatory activities and outcome
- Enhance diversity and improve professionalism

□ **Problems** that need to be addressed

- Stakeholders can't be understood as a **representative sample of the people** affected by a risk or a risk management decision
- Many stakeholders are **interest-driven** and are often **unwilling to accept clear evidence** from scientific analysis or are **willing to accept uncertainty** when the evidence points into their direction
- Involvement processes may lead to **trivial or inconclusive results** due to the diversity and plurality of stakeholders in the process
- Stakeholders may use the involvement process to **stall action**, to prevent regulatory action. Delaying a decision might serve a private interest but may violate the public interest

2. IAEA GUIDANCE

Fundamental safety principles (SF-1)

Principle 2, Role of government

An effective legal and governmental framework for safety, including an independent regulatory body, must be established and sustained

- **RB to set up appropriate means of informing parties** in the vicinity, the public and other interested parties, and the information media about the safety aspects of facilities and activities and about regulatory processes
- Consult parties in the vicinity, the public and other interested parties, as appropriate, **in an open and inclusive process**

Government, legal and regulatory framework for safety (GSR part 1)

Requirement 34: Promotion of regulations and guides to interested parties

The regulatory body shall notify interested parties and the public of the principles and associated criteria for safety - - - , and its regulations and guides available

- The government or the regulatory body shall establish, - - - **processes** for establishing or adopting, promoting and amending regulations and guides
- These processes shall **involve consultation with interested parties** in the development - - -

- Requirement 36: Communication and consultation with interested parties

*The regulatory body shall promote the **establishment of appropriate means of informing and consulting** interested parties and the public about the possible radiation risks associated with facilities and activities, and about the **processes and decisions of the regulatory body***

- RB shall establish, - - -, provision for effective **mechanisms of communication**, and it shall hold **meetings to inform** interested parties and the public and for **informing the decision making process**

✓ Why RB has to communicate with?

Leadership and Management for Safety (GSR part 2)

Requirement 5: Interaction with interested parties

Senior management shall ensure that appropriate interaction with interested parties takes place

- Senior management shall identify interested parties for their organization and shall define an appropriate strategy - - -
 - - - the processes and plans - - - include:
 - Appropriate means of routinely consulting and informing interested parties with regard to radiation risks - - -
 - Appropriate, timely and effective consultation of, and communication with, interested parties in changed or unanticipated circumstances, and the dissemination to them of necessary information relevant to safety
 - Appropriate means of considering - - - the concerns and expectations of interested parties in relation to safety

Licensing process for nuclear installations (SSG-12)

□ *Public participation*

- 2.42. The public should be given an **opportunity to present their views** during certain steps of the licensing process, where appropriate
- 2.43. **Transparency**, along with public participation and involvement in the regulatory process, **reinforces the credibility** of the regulatory body and **enhances local public confidence** in the nuclear regulatory regime
- 2.44. **Throughout the lifetime** of the nuclear installation, the public participation process, - - -, should be **open, transparent, well described and balanced**, - - -

Stakeholder involvement in nuclear issues (INSAG-20)

- Examples of issues with stakeholder interest
 - Debate on the incorporation of nuclear energy in the [national energy plan](#)
 - Development of legislation defining [nuclear regulation](#)
 - Decision to install a new nuclear power plant, fuel cycle installation or a high level waste repository
 - Establishment and execution of the [emergency plan](#)
 - [Controlled releases and radiological surveys](#) of the environment
 - Environmental restoration of old nuclear sites
 - Dismantling and closure of nuclear installations
 - [Management of radioactive waste](#)
 - [Transport of radioactive material](#)
 - Issues related to the security of nuclear sites and material

Stakeholder involvement throughout the life cycle of nuclear facilities (NG-T-1.4)

□ Underlying principles for stakeholder involvement

① Exhibit accountability

- The awareness of responsibility serves to achieve a high level of safety and operational performance within the operating organization
- Encourage involvement with the stakeholders who will hold the operator accountable for any safety lapses
- Stakeholder involvement should be considered as a strategic activity, not as an afterthought

② Recognize the purpose of stakeholder involvement

- To enable all stakeholders to make known their views and to work together to ensure that these views are addressed
- The aim of an involvement is not necessarily to gain consensus or 100% agreement, but rather to understand the basis for a decision for greater trust

③ Understand stakeholder issues and concerns from the beginning

- To reduce the potential for disputes or even legal challenges further down the line, reasonable **issues and concerns presented by stakeholders should be factored** into decisions and public explanations following those decisions **from the beginning**

④ Build trust

- For the perceived credibility of organizations, trust by the community stakeholders should be built, **based on reliability, responsibility and fairness**
- Adopt **an inclusive approach** to stakeholder involvement from the beginning of the planning process

⑤ Practice openness and transparency

- Use “**engage, interact, and cooperate**” model instead of the ‘decide, announce, defend’ communication of the past

- ⑥ Recognize the evolving role of and methods for stakeholder involvement
 - Open and accessible means of stakeholder involvement in existing nuclear programmes has evolved, and these strategies have also become the norm in many nuclear related areas
- ✓ Not about blindly following a standardized procedure, but rather needs to be flexible and varied according to national laws, norms, and cultures

Communication planning by the RB (SRS No. 24)

□ General aspects of communication

- Foster better public understanding of, and trust and confidence in, the regulatory programme and activities
 - Inform the broader public of its **strict safety oversight** without in any way appearing to promote the nuclear industry
- Maintain openness to secure public confidence
 - Establish effective processes for meaningful public involvement
 - Increase the objectivity and the orientation towards results of regulatory approach
 - Ensure openness in the decision making
- Achieve a balance in describing what it finds and what it requires
 - Utilize the art of simple, concise, accurate, factual and balanced explanation and clear exposition for the general public understanding

- Basis for effective communication
 - **Independence** from promotional interest and ability for effective regulations
 - **Legislative framework** for involving the public in the regulatory process
 - Linkage of **communication officer** to the head of RB and timely accessibility to important information
 - Dependence on **national circumstances** and on the type and number of facilities and activities
 - Factual, balanced, timely and clear communication
 - Proactive communication, foreseeing any controversial circumstances (e.g. transportation, siting)
 - **Training** of staff members involved in communication with news media
 - Direct communication with governmental authorities at higher levels for effective functioning
 - Communication with the public whenever necessary, to address concerns and to provide information

□ Elements of communication programme

- Elements for **routine circumstances**

- ✓ Siting, licensing, transport of radioactive material, management of radioactive waste, food irradiation, responding to incorrect and misleading reports in news media
- Information development
- Mechanisms to transmit information
- Schedules to release information in various types and formats
- Monitoring and evaluation
- Feedback for continuous improvements

- Elements for **emergencies**

- Practical programme to provide accurate and up to date information about the nature and status of emergency
- Protective measures being taken
- Measures for the public to protect themselves, if necessary
- International conventions to notify the IAEA and neighboring countries, including the designated national points of contact

□ Structure of communication programme

- ① Objective to be achieved
- ② Goals to build trust and confidence in its competence and professionalism
- ③ Planning
 - Means to achieve goals, procedures, time schedule for actions, mechanisms and means of communication, and human, material and information resources needed
- ④ Implementation
 - Actions and alternatives to achieve goals, including measures to avoid difficulties and to pursue objectives
- ⑤ Evaluation and feedback
 - Achievement in relation to expectation
 - Identification of problems encountered in achieving goals
 - Input for improvements to the programme

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V. REMARKS

- Act on Nuclear Safety Information Disclosure and Communication in 2021
 - Guarantee people's right to know and to promote people's confidence in nuclear safety
 - Disclosure, the Gov. and related institutions, nuclear safety information in an open and prompt manner
 - Establish Nuclear Safety Information Sharing Center
 - Collection, processing and analysis, and disclosure
 - Establish Nuclear Safety Council with the participation of the representatives from local residents and governments
 - Information sharing and communication

□ Principles of risk communication

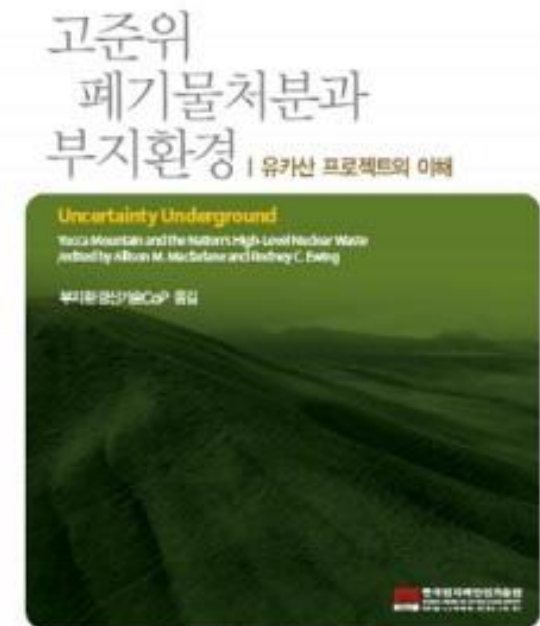
- Empowering people's right to know through information disclosure
 - Enhancing the private sector's use of public data
 - Strengthening public-private partnerships and collaborations
- ✓ After the Fukushima Daiichi disaster in 2011, a paradigm shift in nuclear sector of Korea

□ Nuclear Safety Information Center (NSIC)

- A web-based cyber system for information of nuclear safety and regulation
 - A channel of information disclosure, participation, collection of public opinion, motivation
- On-line activities
 - Weekly e-mail news letter of “Nuclear Safety Information” to the regional residents, NGO members, government officials and general public
 - Communication with public, responding to the requests listed
- Information kiosk
 - 8 Kiosks near NPP sites, which operated automatically
- NSIC monitors
 - Regular meeting with the 24 members from the regional residents, NGO, media, nuclear related organizations, and the general public

□ Publications for the public

- Introduction of nuclear regulation, Story book for children, The Mt. Yucca case (in Korean)



- Direct communications with the public
 - Nuclear Safety Council meetings on nuclear safety with residents of the NPP sites
 - Ombudsman to investigate and resolve any complaints from the public
 - Safety experience courses of INSS
 - Provide the public with the opportunity of understanding nuclear safety regulation
 - Annually, 7,000 ~ 10,000 participants
 - E&T courses for safety management personnel and university students of INSS
 - Share safety knowledge and experience with local government officials, fire-fighters, radiological warfare soldiers, civil radiation monitoring groups

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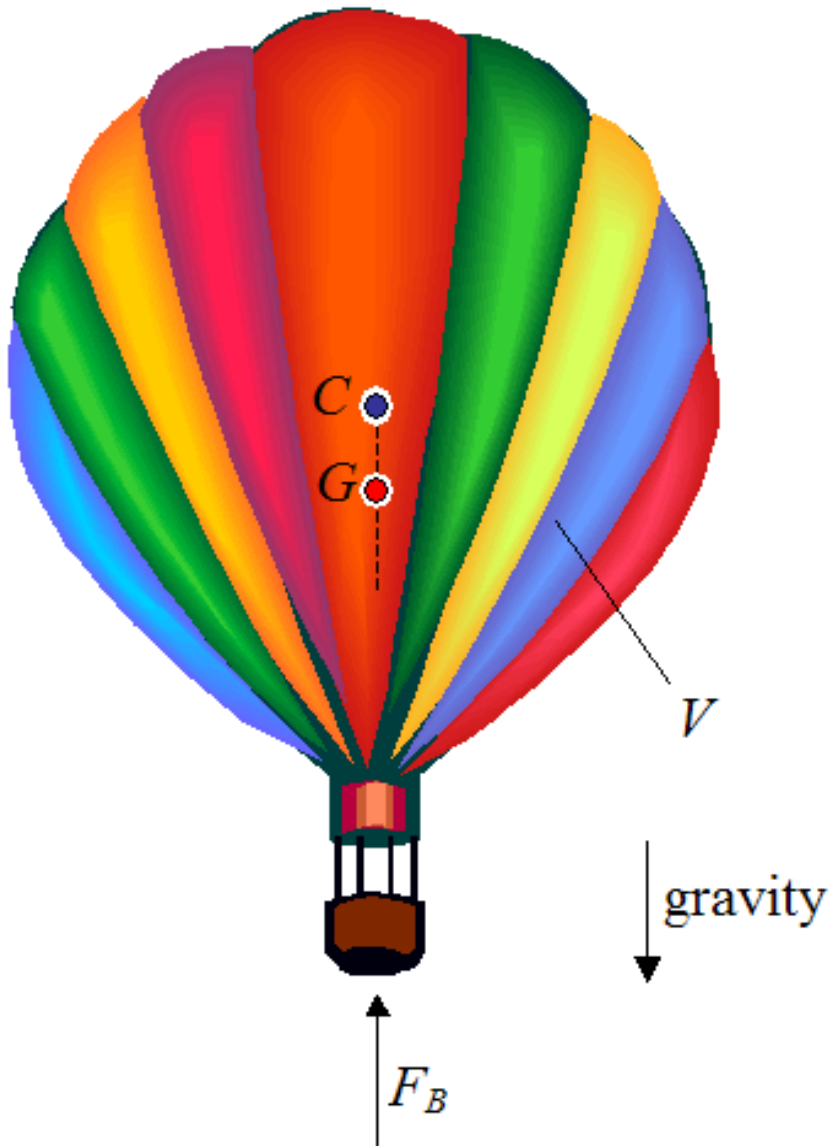
V. REMARKS

- ✓ Risk communication from the beginning
 - In line with the implementation of public governance and for the long-term credibility in the peaceful use of nuclear energy
- ✓ Be flexible and varied in involving stakeholder
 - **National laws, norms and cultures**
 - Refer to best practices available, globally
- ✓ From DAD to MUM and SON, towards TRUST
 - *DAD; Decide, Announce and Defend*
 - *MUM; Meet, Understand and Modify*
 - *SON; Share, Open and Negotiate*

Safety of both cases

To fly, safely,

- Larger F_B than gravity, and higher C than G
 - ✓ Regulatory leadership and competence
- Too small or large distance between C & G deteriorates the safety
 - ✓ Effective separation and optimized decision
- Firing for lifting off, monitoring and intermittent firing for flying
 - ✓ Authorization, monitoring and enforcement



Safety First KINS,
trusted by the public



Thank You



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