The four Poles of the compass to manage the challenges without losing sight of the north!





Pole 1
Identify the HAZARD:
Intrinsic properties



Pole 4 : Integrate EXPECTATIONS

between tolerated risks and expected benefits



Pole 2 **Evaluate the RISK**

related to the exposure to the hazard





Pole 3:

Decide (regulate) the level of SAFETY

to be taken into consideration



4d pole: Evaluate the EXPECTATIONS of involved stakeholders

4th pole : perceiving a risk and building an opinion about it



<u>Risk perception</u> is not always in relation with its objective importance but also on its understanding and <u>acceptation</u>:

Accepted risk: drink, smoke, skiing,...

Tolerated risk: road accident, vaccine, ...

Imposed risk: food or water contamination, industrial plant,

pesticide use, nuclear power, GMOs....

The *acceptation* of a safety measure will depend on the level of <u>perception</u> and <u>understanding</u> of the risk



The risk/benefit balance is less obvious in our "modern" world or city

A benefit can be defined as the expected result from any initiative :

For... I have to ...

eating
hunt

heating chop wood

selling produce

keeping my health take vaccines

ensuring my well being sport



Any (non)-activity implies a level of risk: there is no "zero risk"! ...



The confrontation between Facts and Opinions

- ◆ The public is usually confronted to <u>a clash of</u> <u>OPINIONS</u>: authorities, industrial lobbies, NGOs, media, political organisations, ...;
- In the meantime, the interest of all stakeholders is to have <u>balanced</u> regulatory decisions taken on the basis of FACTS;
- ◆ Facing this situation, an option is to help the stakeholders, including the public, <u>to build their own</u> <u>balanced opinion.</u>



The emotional dimension in risk perception

The perception of a risk includes an important emotional dimension









A conviction, once formed, is almost impossible to change!!



The emotional dimension in risk perception

- Risk and crisis communication are thus more effective when we are able to:
 - Accept that feelings are an important and valid part of why people react to risks or crisis the way they do;
 - <u>Take into account the psychological and emotional</u> <u>factors</u> involved when providing information about any given situation





Factors increasing the feeling of risk

◆ Trust

The less we trust the people the more afraid we will be. The more we trust, the less fear we feel.

Dread

A risk that kills you in a dreadful way evokes more fear than one that kills more benignly.

Uncertainty

The more uncertain we feel, the more we protect ourselves with precaution and fear.

♦ Control

Do you feel pretty safe when you drive?

♦ Choice

A risk we choose seems less dangerous than a risk that is imposed on us.

♦ Children

Survival of the species depends on survival of our progeny. Mercury traces in fish eaten by children seems dramatic.

Natural or man-made

Anthropogenic risks, such as genetic modification of food, evoke more fear than 'natural' risks, such as the hybridization of species to develop new varieties.



Between messages from experts and public's expectations: an unavoidable gap!

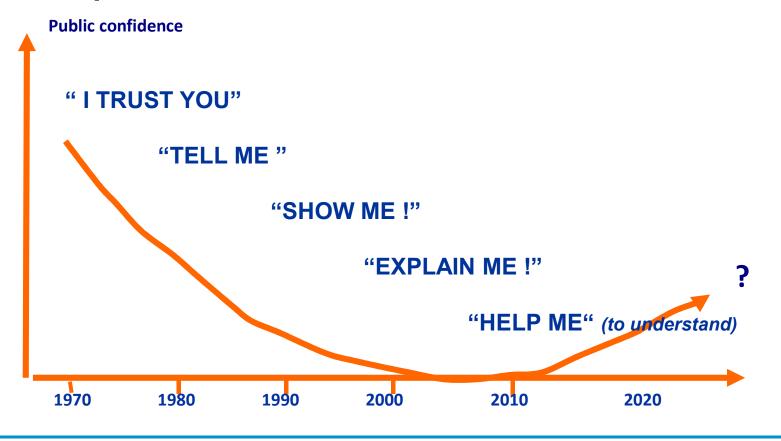
- Expectations of the public:
 - Confidence ?
 - A Protection ?
 - A certainty ?
 - Identification ?
 - An emotion ?
 - A "raison d'être" ?
 - Education ?
 - Nature ?
 - A personalfree choice ?
 - NIMBY!

Legitimate answers of experts:

- "Trust us !"
- there is a "tolerable" risk!
- statistical uncertainties!
- Justification!
- Reason!
- Competitiveness!
- Information!
- Technique is unavoidable!
- The "collective" interest!
- "Done deal", "Fait accompli"!



The evolution of public's expectations from the experts and from the authorities





4th pole: deciding on health and environmental risks

- ◆ This requires building a "<u>pedagogical dialogue</u>" which allows each stakeholder to understand that:
 - Risk and benefit are <u>indivisible</u>;
 - Accepting a risk implies <u>"choosing"</u> it;
 - That there is not necessarily an alternative (substitute) to manage each type of risk;
- Understand it so that it becomes possible to <u>establish</u> this <u>equilibrium</u> between:

PRECAUTION and PROPORTION

GreenFacts (c) 2020



Convince by providing facts rather than selling « opinions »!



- It is at this stage that the <u>scientific facts</u> have to be provided to the stakeholders;
- Their opinions will be stronger if they build them by themselves
- ◆ These facts need of course to be made available in a language accessible to the non specialist:
 - Simplified;
 - Accurate;
 - Faithful and peer reviewed:
 - But strictly factual.
- ◆ = > These summaries should thus be carefully prepared.



GreenFacts: a mean to communicate reliable source of peer reviewed information to non-experts

- Strictly factual summaries: no comment, no opinion on te content
- □ Above 150 subjects covered in 2-level summaries written in an accessible language;
- Summaries in ENG, FR, SP, GER, NL;
- □ About 4 million worldwide visits/yr
- Well ranked in search engines.





The "GreenFacts Highlights" on the essentials about vaccines and vaccination

◆ A faithful summary of the leading report produced the US Center for Disease Control and Prevention (CDC) and the World Health Organization (WHO):

https://www.greenfacts.org/en/vaccines/index.htm

 Also the short animation video on vaccines and vaccination :

https://www.youtube.com/watch?v=b0VwPMx3ENo

◆ An animation video on Hazard, Risk & Safety Subtitles in English, French, German, Dutch, Spanish, Chinese and Russian;

https://www.youtube.com/watch?v=PZmNZi8bon8

French speaking version:

https://youtu.be/wRmfvFYDNr8



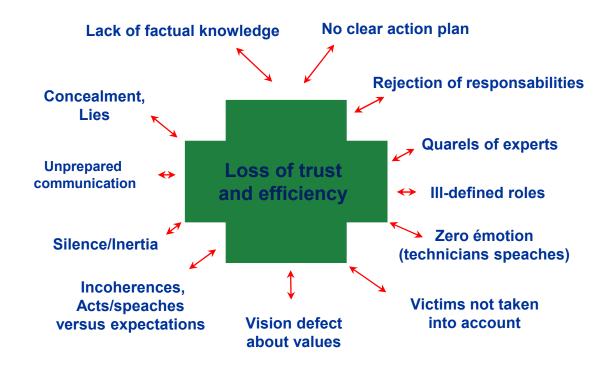


The widening of crisis situations ...

- Crises are more and more numerous and more and more frequent;
- Their nature widens:
 - Health crises: infections; soon out of control (corona virus, Ebola, Lyme;...);
 - Sanitary and Food crises: food security: legionellosis, dioxin crisis, foot and mouth disease,
 - Natural crises: climate change, storms, heat waves, floods,...
 - Accidental crises: Concorde, AZF, road,...
 - Pollution crises: oil spills,...
 - Ecological crises: biodiversity, over-exploitation, epidemics, etc.
 - Economic crises: energy transitions, financial, relocation, globalisation,
 - Human resources crises: restructuring, layoffs, ...
 - Justice and political crises: governance, ethics, indictment of leaders, rigged elections...



The main pitfalls in crisis management



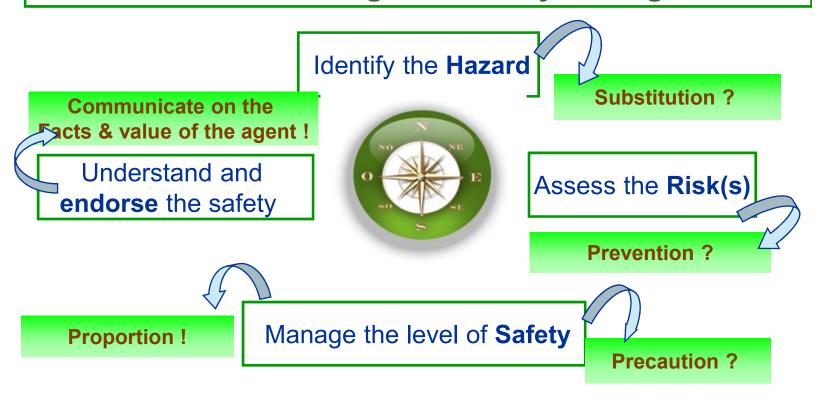


Good attitudes in the event of a crisis

- 1. Above all: <u>anticipate</u>: (almost) all types of crisis are predictable!;
- 2. React <u>quickly:</u> a (public) opinion once installed is difficult to change!;
- 3. Adopt <u>a systemic approach</u> to the crisis, the only one capable of integrating all the issues and players in real time;
- 4. Ensure that opinions and therefore decisions are <u>based</u> on facts and not selected according to pre-established opinions: public, political, economic, ideological, etc...;
- 5. Present <u>clear and consistent arguments</u>.



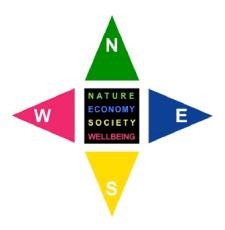
In brief: the challenges in Safety management











◆ See the short animation video (subtitles in 6 languages: https://www.youtube.com/watch?v=PZmNZi8bon8

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