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

**Pole 1**
Identify the HAZARD:
*Intrinsic properties*

**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

**Pole 4**
Integrate EXPECTATIONS between tolerated risks and expected benefits
4d pole:
Evaluate the EXPECTATIONS
of involved stakeholders
4th pole: perceiving a risk and building an opinion about it

*Risk perception* is not always in relation with its objective importance but also on its understanding and *acceptation*:

*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 *perception* and *understanding* 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 a clash of **OPINIONS**: authorities, industrial lobbies, NGOs, media, political organisations, …;
- In the meantime, the interest of all stakeholders is to have *balanced regulatory decisions* taken on the basis of FACTS;
- Facing this situation, an option is to help the stakeholders, including the public, *to build their own balanced opinion*. 
The *emotional* dimension in risk perception

The perception of a risk includes an important emotional dimension

“No explanation, as brilliant it can be, will calm down an outraged public: the effort to calm outrage should come first”

Peter Sandeman

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;
  - **Take into account the psychological and emotional factors** 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

Public confidence


“ I TRUST YOU”

“TELL ME ”

“SHOW ME !”

“EXPLAIN ME !”

“HELP ME“ *(to understand)*

?
4th pole: deciding on health and environmental risks

- This requires building a “pedagogical dialogue” which allows each stakeholder to understand that:
  - Risk and benefit are indivisible;
  - Accepting a risk implies “choosing” it;
  - That there is not necessarily an alternative (substitute) to manage each type of risk;

- Understand it so that it becomes possible to establish this equilibrium between:

PRECAUTION and PROPORTION
Convince by providing facts rather than selling « opinions »!

- It is at this stage that the **scientific facts** 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 the 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


- 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

Loss of trust and efficiency

- Lack of factual knowledge
- No clear action plan
- Concealment, Lies
- Rejection of responsibilities
- Unprepared communication
- Quarels of experts
- Silence/Inertia
- Ill-defined roles
- Incoherences, Acts/speaches versus expectations
- Zero émotion (technicians speaches)
- Vision defect about values
- Victims not taken into account
Good attitudes in the event of a crisis

1. Above all: anticipate *(almost)* all types of crisis are predictable !;

2. React quickly: a (public) opinion once installed is difficult to change!;

3. Adopt a systemic approach 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 based on facts and not selected according to pre-established opinions: public, political, economic, ideological, etc...;

5. Present clear and consistent arguments.
In brief: the challenges in Safety management

- Identify the **Hazard**
- Assess the **Risk(s)**
- Manage the level of **Safety**
- Communicate on the facts & value of the agent!
- Understand and **endorse** the safety
- **Substitution**?
- **Prevention**?
- **Precaution**?
See the short animation video (subtitles in 6 languages):
https://www.youtube.com/watch?v=PZmNZi8bon8