



Communicate  
&  
Cooperate

online training course on risk communication

# DO's & DON'Ts

for Scientists Communicating on Risk

## **Do's & Don'ts for Scientists Communicating on Risk**

Every risk situation is different - the public risk perception responds to the dynamics of the stakeholders, the history of the events and the cultural attitudes in particular regions. So while it is difficult to prescribe how scientists should communicate, experience has shown that certain techniques and comporments have been more successful than others.

Here's a list of general do's and dont's to consider when communication about risks needs to be made.

# DO's

for Scientists Communicating on Risk

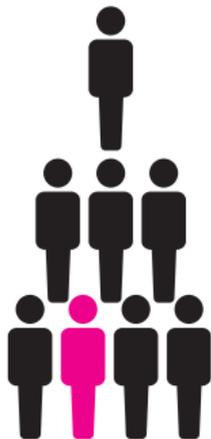
# DO



Ⓞ **Be open  
and available**

As a general rule, the media respects scientists who make themselves accessible and do not try to hide information.

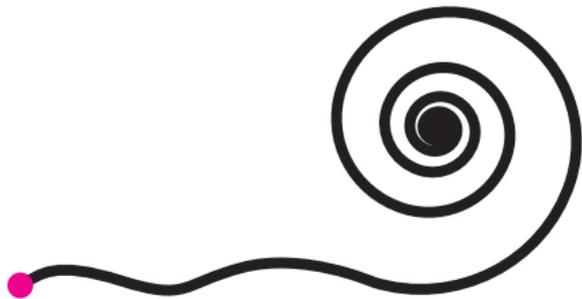
# DO



## Ⓧ Engage with the public

Answer the public's questions and listen to their concerns. Understanding how they perceive the issue may help the scientists improve communication techniques.

# DO



## Ⓞ Try to simplify your explanation

Realise that non-scientists will not understand the jargon or technical details but want to understand what is happening. Simplifying does not however mean being simplistic (if something is complicated, take the time to offer to explain the details as clearly as possible).

# DO



Ⓢ **Bring in other stakeholders in the communication process**

If the scientific information can be agreed upon and the message multiplied by a wider body of stakeholders, it helps strengthen the credibility of the information and public trust in its legitimacy.

# DO

Ⓢ **Remind the public that it is the dose that makes the poison**



Often people over-react to risks and tend not to take exposure levels into account. But do not express the dose in abstract numerical data; rather use toxic equivalents that people can understand (recall Bruce Ames' remark that there are more toxins in a single cup of coffee than in an entire year of fruit and vegetable consumption with pesticide residues).

# DO



## Ⓢ **Illustrate your use of numbers**

If you are giving a large number to express the amount of people affected, compare it to a population of a country; for space, compare it to the size of a country. Avoid units that are not very common (nanograms, terawatts).

# DO

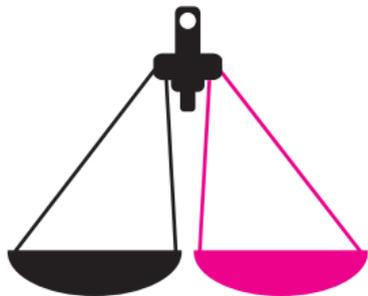


## Ⓢ Contextualise

People often forget that they take risks on a regular basis in rather mundane contexts. While new risks may seem frightening, the public should be reminded of how new risks compare to risks they manage everyday. It is important that the contextualisation is appropriate and measured.

# DO

## ⓐ Always present risks in relation to benefits



Public fear of a risk often has policy-makers walking backwards in risk management situations, losing sight of the benefits that may be lost. The scientist must consider the alternatives (should precaution be an option) and the threat of the risk-risk paradigm (where alternatives may prove to be more hazardous).

# DO

## ④ Compare synthetic risks to natural risks



Risk issues often arise from our distrust of man-made substances (food additives, chemicals, pharmaceuticals ...). Try to compare synthetic risks to toxic equivalents coming from nature (for example, cabbage has far more toxins threatening our health than any synthetic chemicals detected in our blood).

# DO

- Ⓧ **Consider other elements in your communication that might be a challenge and provide a response if possible**



Note that some media and NGOs may have their own agenda and look to identify information to fit their position. If a substance is a low-risk carcinogen, for example, make it clear that the levels of carcinogenicity are low (provide contexts and comparisons).

# DO



## Ⓢ Report on insignificant data or non-findings

Often scientists only report when they have important results. But in risk issues, insignificant data has a reassuring value that something may not be a risk. So many tests have shown the safety of GMO strains, but as this is not considered news, the information is often overlooked.

# DO



## Ⓞ Be human

Scientists are also concerned if there is a risk and the public will more easily trust someone who is able to empathise with them. Listen to the public concerns.

# DO



④ **Put the risks  
into stories  
that shape the society  
(narrative structure)**

Use identifiable contexts or historical characters as part of the risk comparisons and contextualisation.



# DON'Ts

for Scientists Communicating on Risk



# DON'T

- Ⓢ **Don't get into too many details or provide a large amount of statistical data**



Remember that most people are looking for clear information to confidently make their decision. Too many details and numbers, which they may not understand, will not be helpful.

# DON'T

$$\gamma = \lim_{n \rightarrow \infty} \left\{ \frac{1+i}{2} \right\}_{\sin} = ?$$

Ⓢ **Don't  
communicate  
from a scientific  
perspective**

Scientists' perceptions of environmental or health concerns differ from the perceptions of the general public (different perception of what certainty means, different objectives on the use of probability data). Scientists must keep in mind what information the public is looking for in risk assessments.

# DON'T



Ⓢ **Don't dismiss  
any public concerns  
as misguided  
(even if they are)**

Risk issues tend to ignite emotional responses that scientists may miss. These emotions strongly influence public risk perception and must be addressed in order for other relevant data to be considered and integrated.

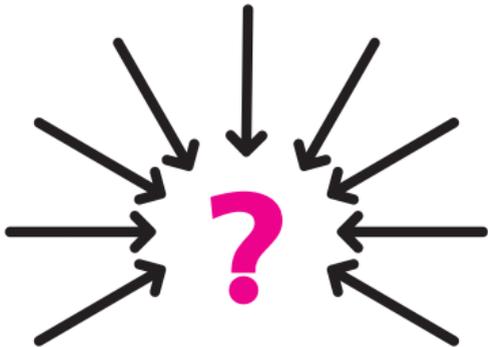
# DON'T

Ⓢ **Don't ignore questions and concerns that might not be scientifically valid**



Many issues develop from social and cultural concerns and might be against the very question of scientific research. As in the case of GMOs in Europe, societal concerns (culinary culture, rustic tradition) were sufficient for policy-makers to cut back on research funding.

# DON'T



## Ⓞ Don't try to communicate too many points

People have a limited ability to absorb information (usually three messages) so the points should be clear and repeated regularly.

# DON'T

Ⓞ **Don't submit long reports**



People are limited by time and capacity to address scientific materials. Provide a short summary text or press release (maximum two pages) with all of the relevant information (with access to longer texts and support materials).



Education and Culture

Leonardo da Vinci

This booklet was compiled during the **“Communicate - Cooperate: Online training on risk communication”** project that was funded by the Leonardo da Vinci Programme of the European Commission (2002 - 2006).

The partners who elaborated the **“Communicate-Cooperate”** project are presented in the following pages:



**INTERCOLLEGE**

**INTERCOLLEGE**

Dr Stylianos MAVROMOUSTAKOS  
Ms. Aletia TRAKAKIS  
[www.intercollege.ac.cy](http://www.intercollege.ac.cy)



**ATLANTIS**<sup>TM</sup>  
RESEARCH ORGANISATION

**ATLANTIS**

**RESEARCH ORGANISATION S.A.**  
Ms. Foteini PSARRA  
[www.atlantisresearch.gr](http://www.atlantisresearch.gr)



EUROPEAN  
JOURNALISM  
CENTRE

**EUROPEAN JOURNALISM CENTRE**

Mr. Giuseppe ZAFFUTO  
[www.ejc.nl](http://www.ejc.nl)



Vrije Universiteit Brussel

**VRIJE UNIVERSITEIT BRUSSEL  
VESALIUS COLLEGE**

Dr. Georgios TERZIS  
[www.vesalius.edu](http://www.vesalius.edu)

---



**NATIONAL INSTITUTE OF  
CHEMISTRY SLOVENIA-  
DEPARTMENT OF BIOTECHNOLOGY**

Prof. Roman JERALA  
[www.ki.si](http://www.ki.si)

---



**INTERDISCIPLINARY RESEARCH UNIT  
ON RISK GOVERNANCE & SUSTAINABLE  
TECHNOLOGY DEVELOPMENT**

Mr. Ludger BENIGHAUS, Dr. Birgit MACK  
[www.zirn-info.de](http://www.zirn-info.de)

---



**OPW DOSKOMP - IT SYSTEMS**

Mr. Tomasz WOZNIAKOWSKI  
[www.doskomp.lodz.pl](http://www.doskomp.lodz.pl)

---



**EUROPEAN JOURNALISM TRAINING  
ASSOCIATION**

Ms. Marianne PETERS  
[www.ejta.nl](http://www.ejta.nl)

---



online training course on risk communication

TORO

For further information contact

Project Coordinator: Ms. Foteini Psarra

ATLANTIS RESEARCH ORGANISATION S.A.

psarra@atlantisresearch.gr

T: +30 2310 531000

[www.communicate-cooperate.eu](http://www.communicate-cooperate.eu)