



The Importance of Ethics in the View of the International Commission on Radiological Protection

Jacques LOCHARD

Vice-Chair of ICRP

2nd International Symposium on Ethics of Environmental Health

Budweis, Czech Republic

15 – 19 June 2014

This presentation has neither been approved nor endorsed by ICRP

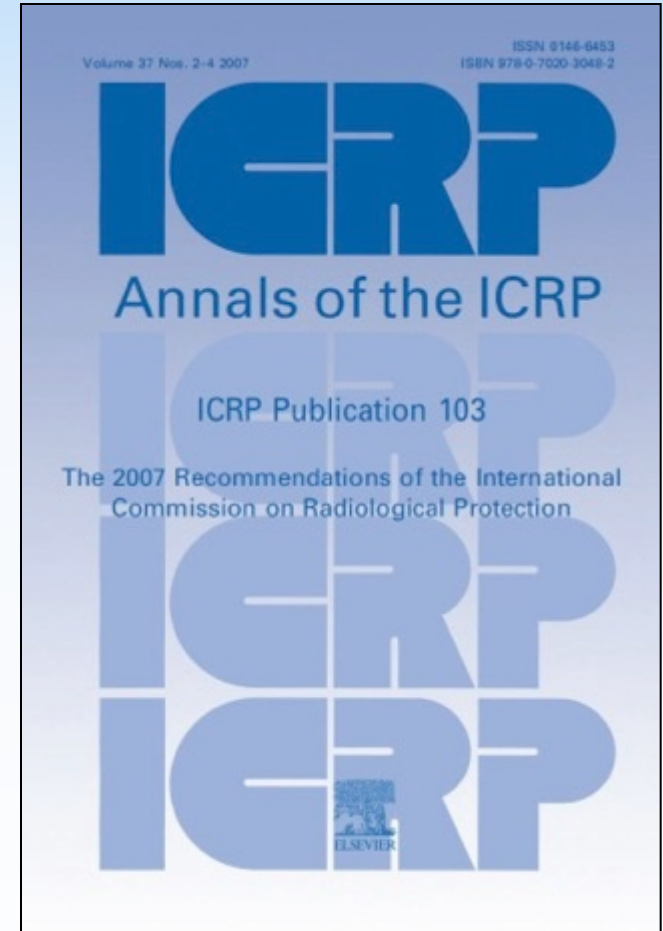
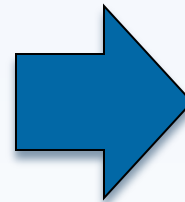
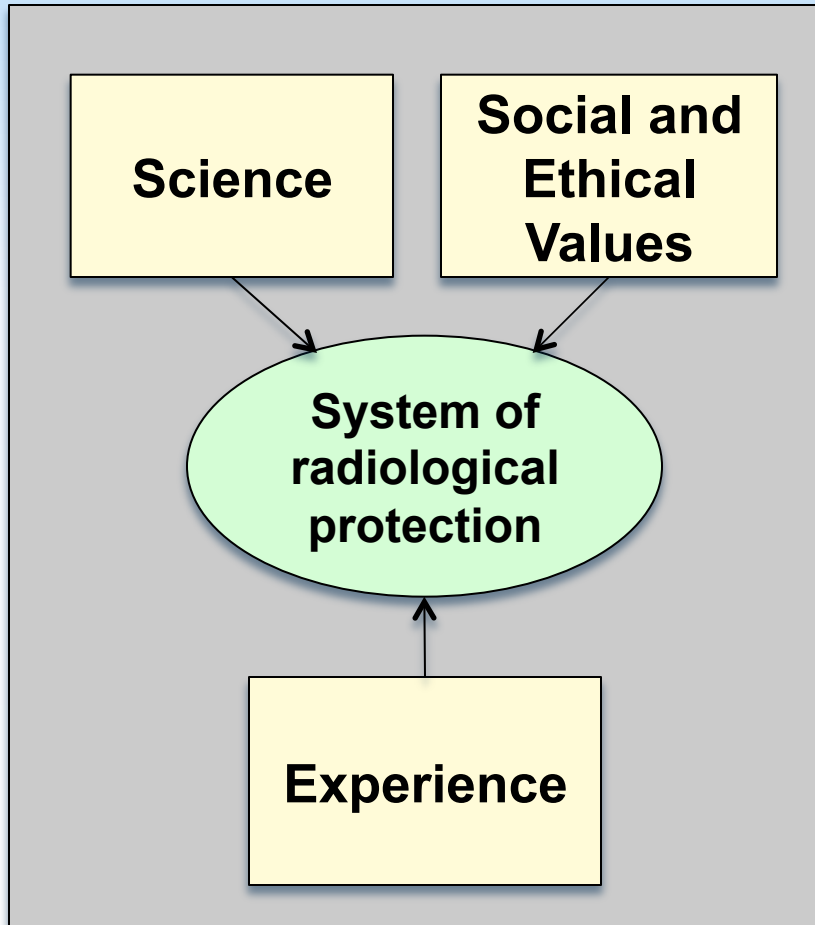
Introductory remarks

- Explicit considerations about the ethical basis of the system of radiological protection are almost absent from ICRP Publications
- However, there was a constant reflection conducted by the Commission on the ethical foundations of the system that can be discovered by carefully analysing the ICRP Publications
- There are also the past writings of several prominent members of the Commission, sometimes in relation with debates on the ethical foundations of the system, as for example after the publication in 2001 in Health Physics of a critical paper by **Persson** and **Shrader-Frechette** on the ethical principles underlying the protection of workers which had a clear impact on the preparation of Publication 103 by putting more emphasize on the protection of individuals

Content of the presentation

1. Some general considerations on science, ethics and radiological protection principles
2. The current ICRP initiative on the ethics of radiological protection
3. A few remarks about stakeholder involvement

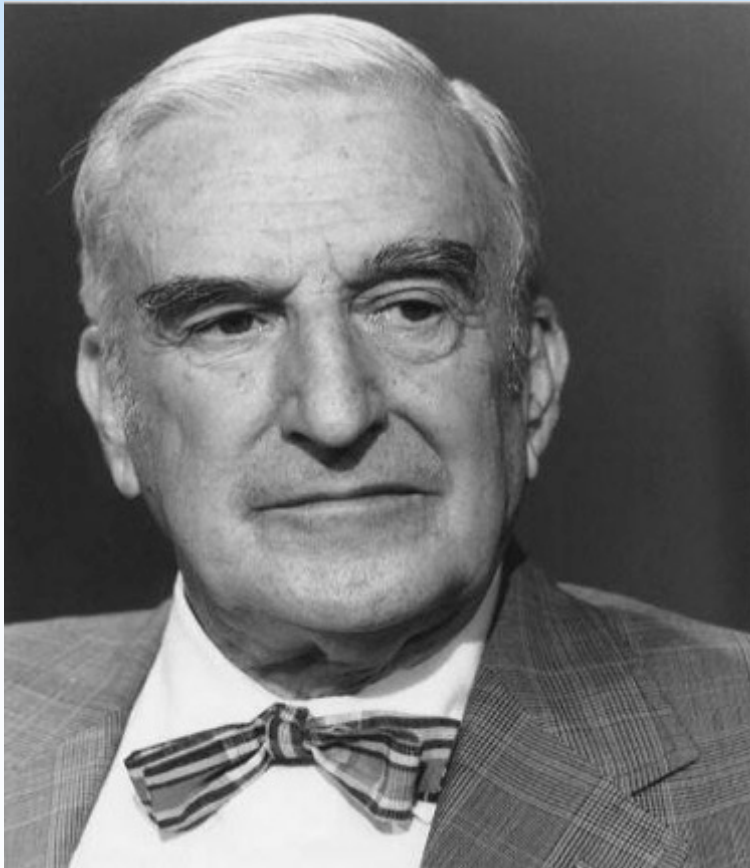
The three pillars of the system of radiological protection



Publication 103

Science and ethics in radiological protection

- A long tradition -



Lauriston S. Taylor (1902 – 2004)
Chair of ICRP from 1937 to 1962

"Radiation protection is not only a matter for science. It is a problem of **philosophy**, and **morality**, and the utmost **wisdom**."

The Philosophy Underlying
Radiation Protection

Am. J. Roent. Vol. 77, N° 5,
914-919, 1957

From address on 7 Nov. 1956

Wisdom

- A basic definition of wisdom is the **judicious application of knowledge**
- As a **virtue** wisdom is the disposition to perform actions with the highest degree of adequacy under any given circumstances
- In its popular sense, wisdom is attributed to a person who takes **reasonable** decisions

Science and judgements in radiological protection



Rolf M. Sievert (1896 - 1966)
Chair of ICRP from 1956 to 1962

"The establishment of maximum permissible radiation levels is a non scientific task, which must be based primarily on **scientific knowledge and judgement.**"

The Work of the International Commission on Radiological Protection

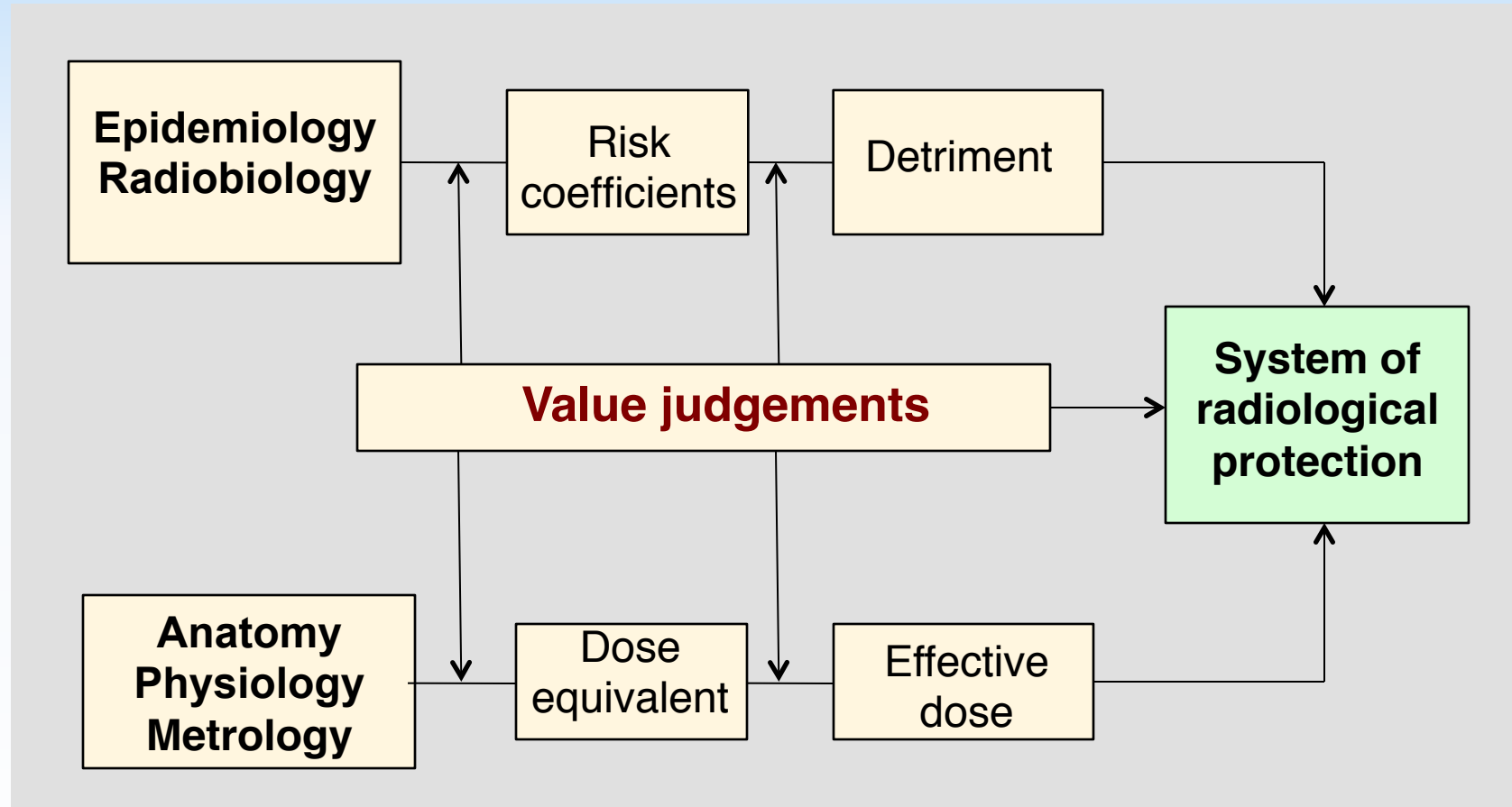
United Nations International Conference on The Peaceful Uses of Atomic Energy, Geneva, 1-13 September 1958, Vol. 21, pp. 3-7

Science and value judgements in radiological protection

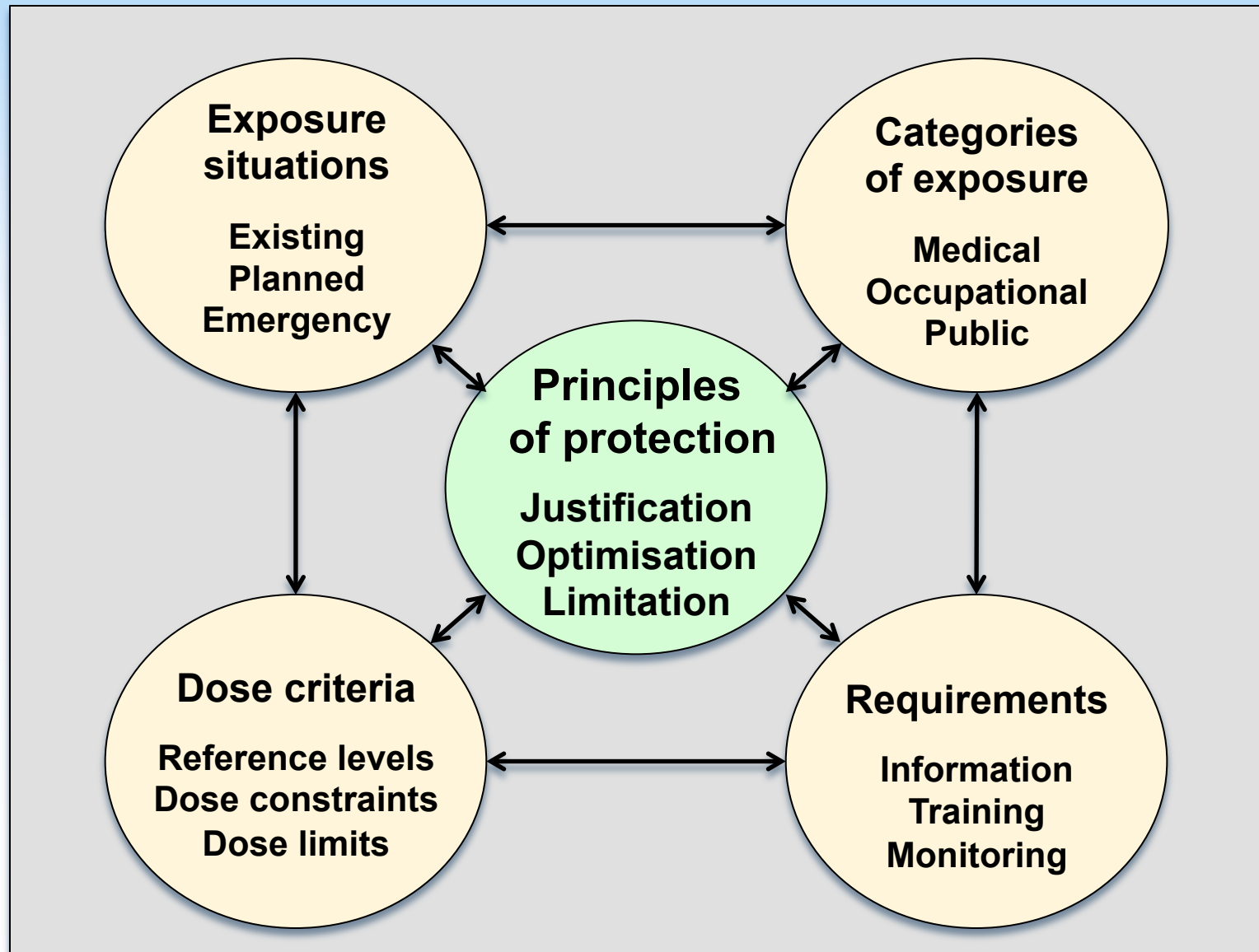
« The Recommendations are based on **scientific knowledge and on expert judgement**. Scientific data, such as those concerning health risks attributable to radiation exposure, are a necessary prerequisite, but **societal and economic aspects** of protection have also to be considered. All of those concerned with radiological protection have to make **value judgements...** »

(ICRP Publication 103, § 27)

The scientific basis of the system of radiological protection



The system of radiological protection



The starting of the current ICRP initiative on ethics

- ICRP Committee 4 (C4) established a Working Party (WP) to reflect on the ethics of radiological protection at the general meeting of the Commission in Porto in November 2009
- The WP reviewed the ethical theories and concluded that the system of radiological protection is rooted in the 3 major theories of ethics. This system is a construction attempting to combine the respect of **individual rights** (deontological ethics) and the pursuit of **collective interest** (utilitarian ethics) and to act **judiciously and reasonably** (virtue ethics)
- The WP also identified the importance for ICRP to confront the the “Western” ethics to the moral judgements from the **other cultural backgrounds** in the world

Are the ethical values of radiological protection universal?



Confucius



Aristotle

The current ICRP initiative ethics

- In autumn 2012 in Fukushima, Japan, the Main Commission (MC) endorsed the C4 proposal to prepare the **Terms of Reference for a Task Group** on the ethics of radiological protection and also to develop the work in close **cooperation with radiation professionals** through **IRPA Associate Societies** and **specialists of ethics** in the different regions of the world
- A cooperation proposal was sent to IRPA late 2012 and an agreement was established between ICRP and IRPA early 2013
- The MC approved the creation of **Task Group 94** on the ethics of radiological protection at its general meeting in Abu Dhabi in October 2013

Terms of Reference of Task Group 94 on the ethics of radiological protection

- The Task Group will develop an **ICRP Publication** presenting the ethical foundations of the system of radiological protection recommended by the Commission.
- The purpose of this Publication is to:
 - **consolidate** the Recommendations
 - **improve** the understanding of the system
 - **facilitate communication** on radiation risk and its perception

Task Group 94 members

Full members

Deborah Oughton, Norway (Chair)

Marie-Claire Cantone, Italy

Kunwoo Cho, Korea

Sven Ove Hansson, Sweden

Chieko Kurihara-Saio, Japan

Thierry Schneider, France

Richard Toohey, USA

Sidika Wambani, Kenya

Friedo Zölzer, Czech Republic

Corresponding members:

Renate Czarwinski (IRPA)

Bernard Le Guen (IRPA)

Emilie Van Deventer (WHO)

Forward schedule

- **Adoption of the TG 94 report by C4** in October 2015 in Seoul, Korea, at the occasion of the general meeting of the Commission in conjunction with the 3rd International Symposium on the System of Radiological Protection with a special session on the ethics of radiological protection
- **Public consultation** from January to March 2016
- **Final discussion** at the IRPA14 Congress, Cape Town, in May 2016
- **Adoption of the revised TG 94 report for Publication** by the Main Commission in **autumn 2016**



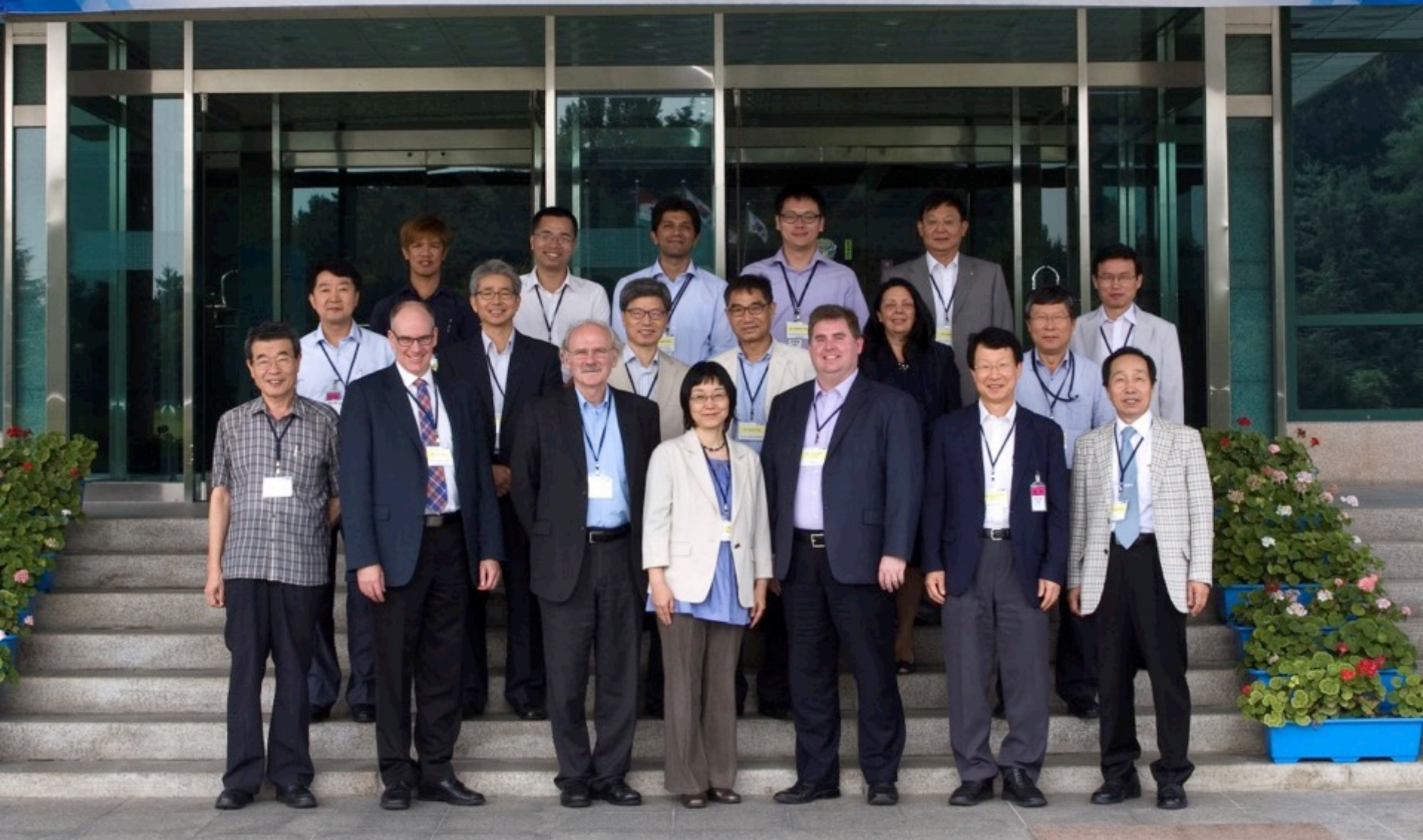
1st Asian Workshop on the Ethical Dimensions of the Radiological Protection System

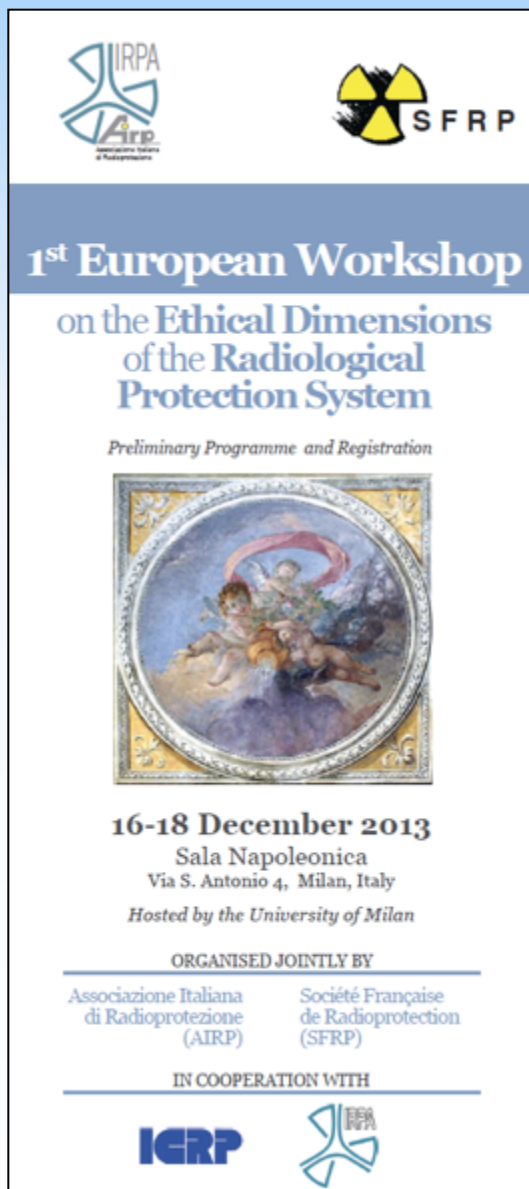
2013 Aug 27-28, Daejeon, Korea

Organised by the Korean Association for Radiation Protection (**KARP**), and hosted by the Korean Institute of Nuclear Safety (**KINS**)

Programme:

- Ethical theories and radiation protection principles
- Ethical issues in the implementation of the system of radiological protection
- Working groups





1st European Workshop on the Ethical Dimensions of the Radiological Protection System

16 -18 December 2013, Milan, Italy

Organised jointly by the Italian Association of
Radiation Protection (**AIRP**) and the French
Society of Radiation Protection (**SFRP**)

Programme:

- Ethical theories and radiation protection principles
- Ethical issues in the implementation of the system of radiological protection
- Working groups



UK Workshop on the Ethical Dimensions of the Radiological Protection System

11 June 2014, London, United Kingdom

Organised by the UK Society for Radiological Protection (**SRP**)

Programme:

- The ethical basis of radiological protection
- Radiation protection and professional ethics
- Workings groups



UK Workshop on the Ethical
Dimensions of the Radiological
Protection System

Wednesday 11 June 2014

British Dental Association,
64 Wimpole Street
London W1G 8YS



Where are we after the London workshop?

- A set of **central ethical values** identified:
 - **Benevolence** : to do more good than harm
 - **Prudence** : to keep exposure ALARA
 - **Justice**: to reduce inequities between individual exposures
 - **Dignity**: to involve stakeholders
- Two 'values' to be still carefully considered: **reasonableness** and **tolerability**
- Two questions:
 - 1. Should the objective of protection be broaden beyond "classical" health protection and consider the **well-being** of individuals (Cf. WHO definition of health)?
 - What are the **ethical responsibilities** of the radiation protection **professionals**?

A first reference of stakeholder involvement in radiological protection

“Aside from our experienced scientists, trained in radiation protection, where do we look further for our supply of **wisdom**? Personally, I feel strongly that we must turn to the much larger group of citizens generally, most of whom have to be regarded **as well-meaning and sincere**, but rarely well-informed about the radiation problems that they have to deal with. **Nevertheless, collectively or as individuals, they can be of great value ... in developing our total radiation protection philosophy.**”

**Lauriston Taylor, Sievert Lecture, IRPA 5 Congress,
Jerusalem, 1980**

Next steps

- Respond to the questions that emerged so far
- Continue to explore the ethical values currently within the system of protection
- Shed light on the different **components of the system** and the various aspects of the **practical implementation** of radiological protection that raise ethical questions and value judgments
 - Types of exposure situations
 - Categories of workers
 - Dose criteria
 - Requirements
 - Protection of the environment
 - Protection of future generations

Forthcoming meetings

- IRPA North American Workshop on the Ethical Dimensions of Radiological Protection, **Baltimore, MD, USA, 17-18 July 2014**

Organised jointly by the US Health Physics Society (**HPS**), the Canadian Radiation Protection Association (**CRPA**), and the Mexican Society Radiation Safety (**SMSR**)

- Second European Workshop on the Ethical Dimensions of the Radiological Protection System, **Madrid, Spain, early 2015**

Organized by the Spanish Society of Radiation Protection (**SEPR**) in cooperation with **AIRP** (Italy), **SFRP** (France) and **SRP** (UK)

The emergence of stakeholder involvement in radiological protection

- Stakeholder engagement in radiation protection emerged in the late 80s and early 90s in **the context of the management of exposures in contaminated areas by the Chernobyl accident and contaminated sites by past activities** to take into account more effectively the concerns and expectations of affected stakeholders and the specificity of the contexts
- First experiences:
 - The **Cumbria** sheep farming project in UK (late 80s early 90s)
 - The **Ethos** Project in Belarus (1996-2001)
 - The **Rocky Flats** soil decontamination in USA (1998-2000)
 -
- The series of Villigen international workshops organized by **CRPPH/NEA** (1998, 2001, 2003) played a key role to disseminate the stakeholder involvement approach in radiological protection

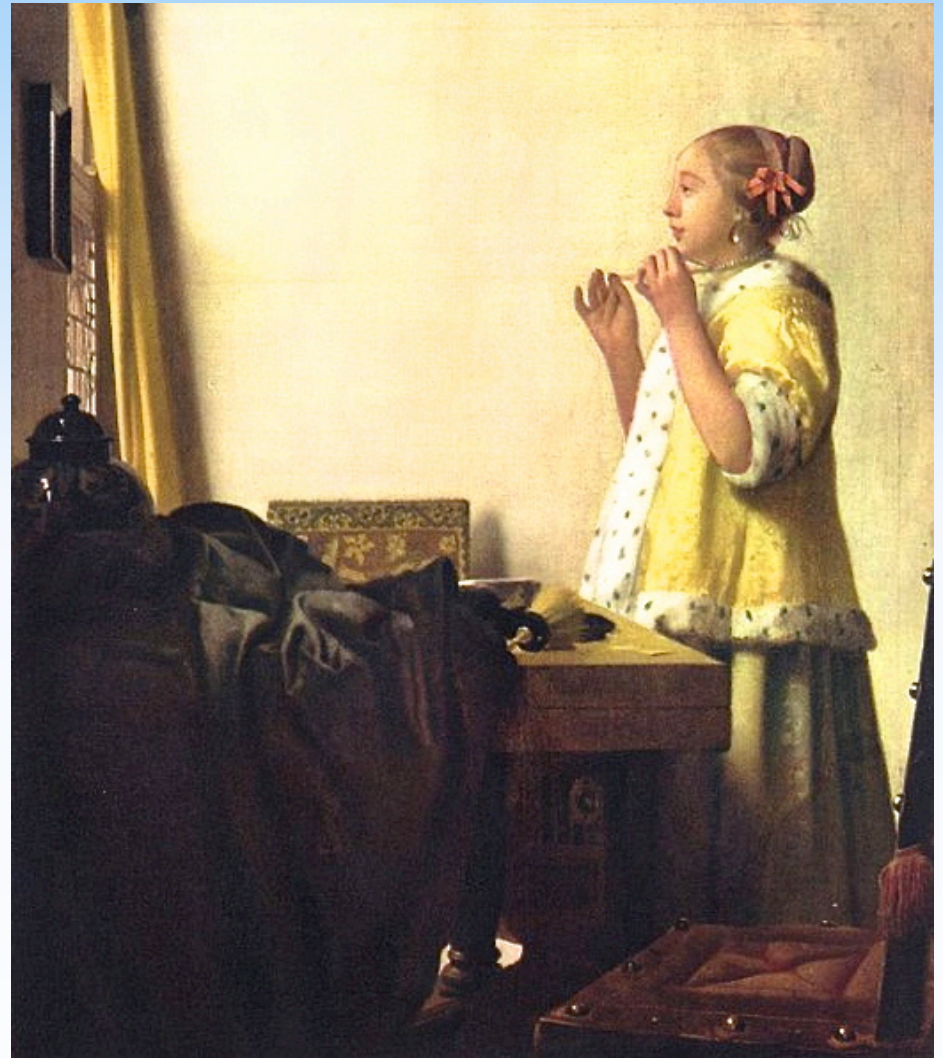
ICRP Publications mentioning explicitly stakeholder involvement

- The first one is **Publication 82 (1999)** on the protection of the public in situations of prolonged radiation exposure
- “Many situations of prolonged exposure are integrated into the human habitat and the Commission anticipates that the decision-making process will include the **participation of relevant stakeholders**, rather than radiological protection specialists alone.” (§ 4)
- Then **Publications 91 (2003)** on the protection of non-human species and **Publication 101 (2006)** on the optimisation of protection
- The Commission mentioned for the first time in its **General Recommendations** the need to account for the views and concerns of stakeholders when optimising protection in **Publication 103 (2007)**

According to the French poet Charles Baudelaire, this painting is one of the best testimonies that we can give of our **dignity**.

*Quoted by **Jean-Michel Hirt** in “The Human Dignity”, 2012*

The author comments that all the elements on this painting “reflect the **agreement between a culture and those who share it**, between the animate and inanimate.”



**Woman with a Pearl Necklace,
painted in 1664 by Johannes Vermeer**



Measurement of food products
of local gardens

Suetsugi, Japan, July 2013

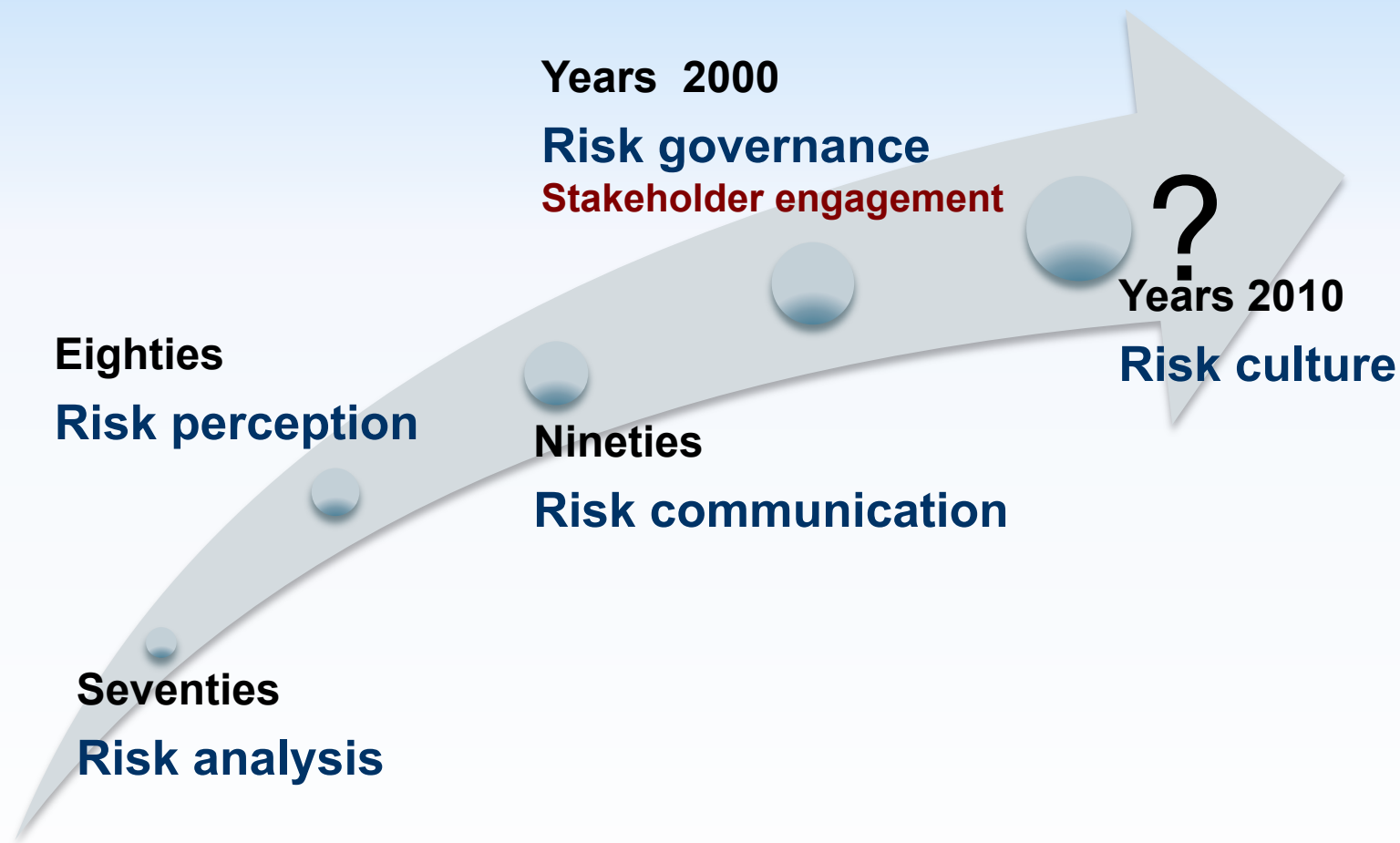


Preparations for the local festival

Suetsugi, Japan, April 2014

Photos: Jun Takai, Tokyo

From radiation risk analysis to radiation protection culture?



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