IRPA

IRPA Guiding Principles for Establishing a RP Culture

Dr. B. Le Guen MD,

IRPA Executive Officer

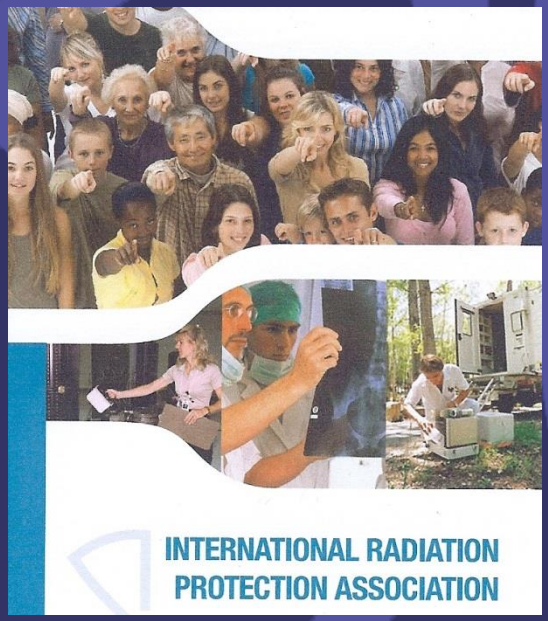
Occupational Safety and Radiation Protection VP ,
DPN, EDF

International Radiation Protection Association

IRPA : **Be the voice of RP professionals**

- 49 Associate Societies representing 62 countries ;
- Almost 18,000 individual members

Value and strength of IRPA:
Enormous resources of ***practical knowledge and experience*** *in radiation protection and neighbouring specialist fields*



IRPA provide a medium for communication and advancement of radiation protection throughout the world and has recognised the importance of establishing a sound radiation protection culture

Goal ?

- **From nuclear industry to the medical sector, an IRPA RP culture Guidelines for professionals must be a common document about culture from the perspective of professionals, geared towards professionals**

- **The purpose was to capture the opinion and standpoint of RP professionals on what a RP culture must be.**
- **This statement has been developed in an inclusive and consultative approach**

Questions during the IRPA meetings

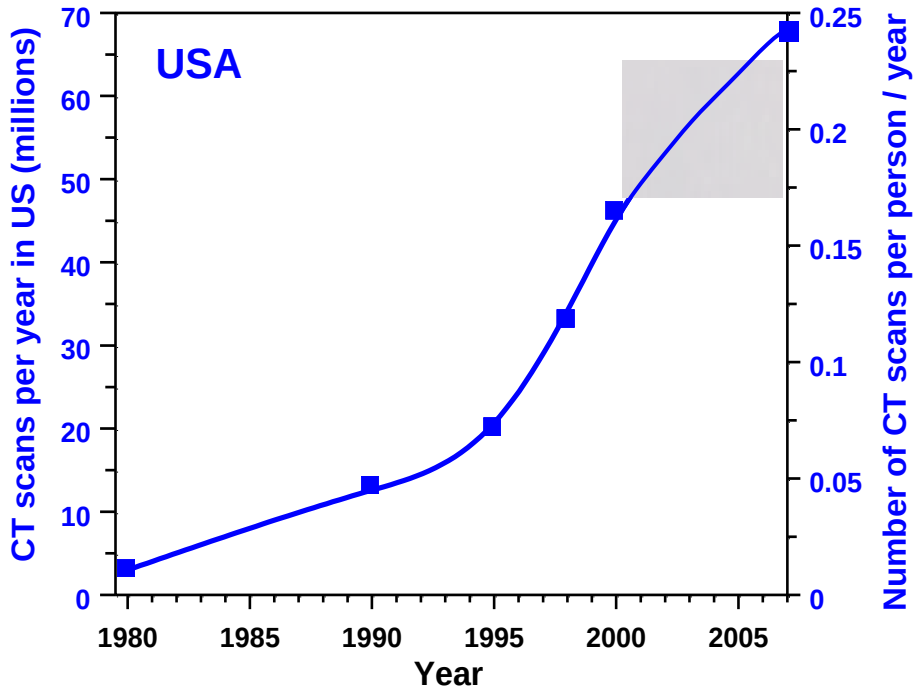
- What are the elements of the culture and how could we define it?
- Is it possible to assess the RP culture and what could be the criteria?
- How to engage the stakeholders (regulators, operators, professional organizations…) in the process of developing RP culture.
- What is the role of RP professionals and IRPA AS with regard to RP culture?
- How is regional culture included?
- What are the criteria for success?

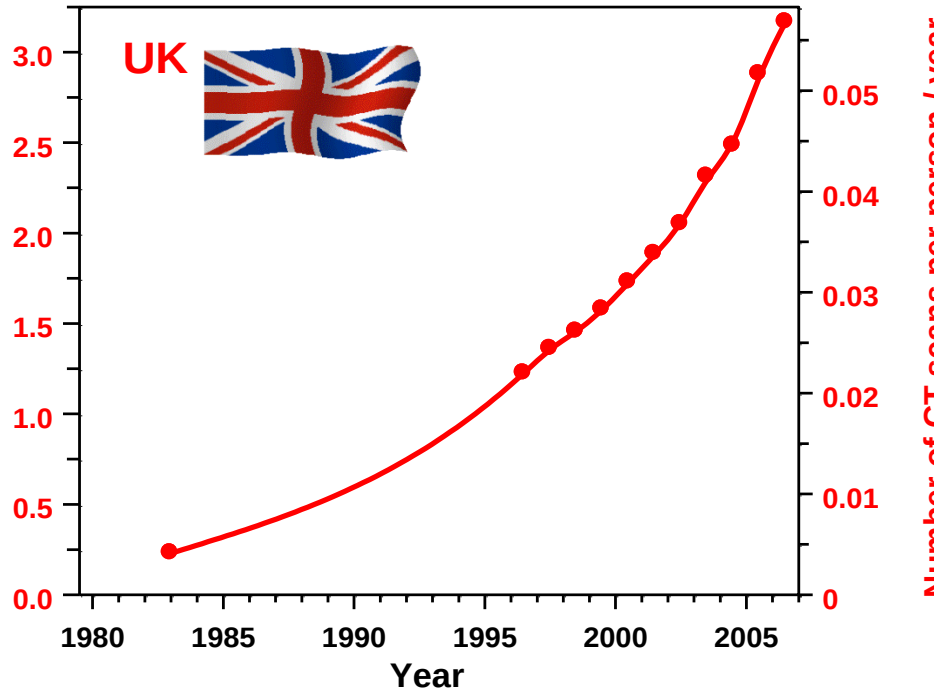
2 practical examples
1-RP in industry

- The generation who developed RP applied today is gradually leaving now**.**
  - **In France, EDF NPP Internal workforce : 19000 employes, 40% are being replaced in 5 years**

- **As we change the core of the teams, we must remain vigilant in order to maintain** a high degree of competence **and** to continue making progress **in radiation protection and occupational safety**
- Experience cannot be replaced solely by education and training **-** the key is in building and sustaining the culture.

2-Doses to patient : large increase of CT scan exam in 20 years





- **There are no differences between sectors (medical, research, nuclear industry) whereby RPC can be understood as a combination of habits and knowledge of RP**
  - **in all its aspects for patients, workers, population and environment,**
  - **and in all exposure situations, combining scientific and social dimensions.**

Safety Culture vs RP Culture

Safety culture is a concept that has been defined by different institutions, organizations, and there is a common understanding of its meaning

- **Safety culture includes nuclear safety, RP, occupational safety, security, health, environmental safety, …**
- Hence, RP culture in our organizations should be seen as the implementation of RP principles inside the framework of safety culture
- RPC and SC should not be opposed. **RPC is part of SC with peculiarities: both are looking at human errors and the human side of safety.**

What is meant by Culture?

- The ideas, beliefs and customs that are shared and accepted by people in a society.

- That complex whole, which includes knowledge, belief, art, morals, law, customs, values, symbols, rituals and any other capabilities and habits, acquired by people as members of society that determine appropriate attitudes and behavior

Elements and Traits of an Radiation Protection / Safety Culture

- **Culture comes from three sources:**
  - (1) **beliefs, values, and assumptions** of the founders of an organization,
  - (2) **learning experiences of group members** as the organization evolves, (Groups of people who have shared significant problems, solved them, observed the effects of their solutions, and who have taken in new members)
  - (3) beliefs, values, and assumptions **brought in by new members and leaders.**

Features of a Culture in a Society

- Central value
- Typical and specific structure
- Strong ethos kept in leaders
  - (ethos: *the fundamental and distinctive character of a group, social context, or period of time, typically expressed in attitudes, habits, and beliefs*)
- System of continuation (education) – transfer of knowledge and expertise
- Endurance
- Combination of innovation and conservation
- Social acceptance

- **Culture can be considered as a system of endurance of knowledge and expertise, with continuity through education and transfer to the next generation**

Why are we interested in a specific Radiation Protection Culture?

- **Embedding RP at a cultural level within an organization is by far the most effective way of delivering the performance to which we all aspire.**
  - To give visibility to the fundamentals of RP
  - To promote radiation risk awareness
  - To promote shared responsibility among practitioners, operators, manufacturers, management and regulators
  - To maintain the RP heritage
  - To facilitate its transmission
  - To improve continuously the quality and effectiveness of RP
  - To contribute to the general safety

Role and Position of the Radiation Protection Professional

- The RP culture program must impact on all the practitioners who can affect workplace exposure, including
  - RP experts,
  - directors and senior managers,
  - middle level managers and supervisors,
  - the workforce (including contractors), those professionals who work with radiation
  - and, where appropriate, patients, designers and suppliers of equipment
- Need to develop:
  - Relationship with management and the workforce
  - Relationship with the regulators
  - Involvement of other relevant stakeholders

different definition of Culture

1. *The term "RP culture" means the way in which RP is founded, regulated, managed, performed and preserved by professionals but also reflects the attitudes, beliefs, perceptions and values that they share in relation to RP. (Paris workshop, December 2009)*

2. ***Nuclear Safety Culture is the core values and behaviors resulting from a collective commitment (engagement) by leaders and individuals to emphasize safety over competing goals to ensure protection of people and the environment (NRC)***

Organizational Culture

- **Organizational structure institutionalizes**
  - **how people interact with each other,**
  - **how communication flows and how power relationships are defined.**
  - **It also reflects the value based choices made by the professional society**

- For example, in a total safety culture, employees or practioners not only feel responsible for their own safety, they feel responsible for their peers' safety,
  - and **the organizational culture supports them acting on that responsibility**.

Summary

- **What have a definite impact on radiation protection culture?**
  - **Strong leadership,**
  - **Education and training,**
  - **Establishment of a positive behavior at the working place (Individual and collective behavior)**
  - **A proper communication among all practitioners.**
  - **Similarly, learning from events, incidents and near misses is an important part of culture development.**

Safety Culture and Radiation Protection

Leadership Safety -Values and Actions	Problem Identification and Resolution	Personal Accountability
Leaders demonstrate commitment to safety in their decisions and behaviors	Potential impacts on safety - promptly identified, evaluated, prioritized, addressed and corrected	All individuals take personal responsibility for safety
Work Processes	**Continuous Learning**	**Environment for Raising Concerns**
Maintain & enhance safety when planning and controlling work activities	Seek opportunities to learn & Implement safety methodologies	Personnel feel free to raise safety concerns without fear
Effective Safety	**Communication**	**Respectful Work Environment , Questioning Attitude**
Communications focus on safety	Trust and respect permeate the organization	Individuals identify discrepancies in existing conditions & inappropriate actions

An RP organization could provide at local level (examples):

- A formalized procedure to assure that the workers know the principles of RP
- A process to check if there is an established internal procedure for refreshing and for updating courses and training provided to workers and professionals.
- Formally entrust the position of the RP expert with the responsibility to teach and refresh theoretical and practical knowledge and RP related duties;
- Formalized self-assessments to evaluate the workers' radiation protection culture and random checks via questionnaires filled in by the patients about radiation protection culture;
- Check first the existence of a blame-free policy to report and track errors and near misses in an open and constructive way.

Assessment of RP culture

- **A combination of optimal tools is required to assess the level and quality of radiation protection culture,**
  - **not only to measure the identified criteria of success,**
  - **but also to stimulate judgments and observations about positive or negative trends**

Your role?

The RP practitioners must be aware that some interaction with wider stakeholders can assist in the development and application of workplace culture

The main stakeholders

- The workforce (at all levels)
- Senior managers and Directors
- Contractors
- Equipment manufacturers, vendors and suppliers
- Regulators and other authorities
- Medical and health professionals, especially but not exclusively those who are using ionizing radiation,
- Functional leaders and risk managers
- Patients

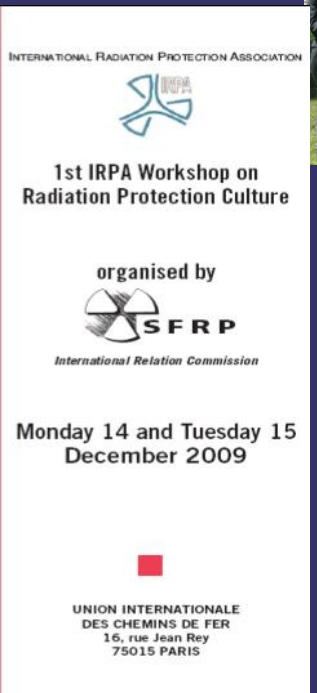
your behavior

- Display **strong personal leadership and motivation**
- Develop **a narrative on radiation protection in all exposure situations**
- Develop **relationships with management, the workforce and the regulators**
- Consider following the NRC-style approach **to develop a policy statement on radiation protection culture**

- **Developing a “field culture” in addition to the science, engineering or medical culture is a way to anticipate problems and to obtain the commitment of all employees.**
- **Radiation protection culture is a learned way of life.**

Enhancing RP Culture is a Process

- IRPA is committed to publish a final set of Guidelines that incorporates approaches from different countries and regions of the world, from medicine, industry and regulators.



Conclusion

- The aim is to present these guiding principles at regional congresses due to take place in 2014, which will provide an opportunity for celebrating IRPA's 50th IRPA anniversary,
- This guideline is a symbol for the IRPA anniversary, from the past toward to the future but with a common culture

- International Radiation Protection Association
- http://www.irpa.net