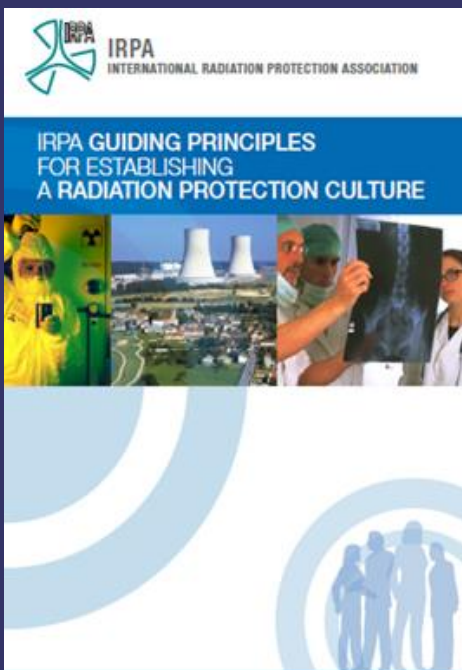




IRPA guiding principles on Radiation Protection Culture drawn up by RP professionals



Dr B Le Guen MD, PhD
IRPA Executive Officer

IRPA regional congress
Buenos Aires, Argentina, 10st 17th April 2015



Role of IRPA

The international voice of RP professionals

Value and strength of IRPA:

Enormous resources of **practical knowledge and experience** in radiation protection and neighboring specialist fields

- 50 Associate Societies representing 63 countries ;
- Almost 18,000 individual members

IRPA provides a medium for communication and advancement of radiation protection throughout the world -

and has recognised the importance of establishing a sound **radiation protection culture**



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

Culture :a combination of habits and knowledge



- (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.

Why are we interested in a specific Radiation Protection Culture?

- To give visibility to the fundamentals of RP
- To promote radiation risk awareness (conscience)
- 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

RP Culture: Goal ?



- **From nuclear industry to the medical sector, this first IRPA Guiding Principle on RP Culture is 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 constitutes a strong RP culture.**

- This guidance has been developed in an inclusive and consultative approach





Enhancing RP Culture is a Process

- IRPA's Guiding Principles incorporate approaches from different countries and regions of the world, and from different sectors: medicine, industry and regulators.



INTERNATIONAL RADIATION PROTECTION ASSOCIATION



1st IRPA Workshop on
Radiation Protection Culture

organised by



International Relation Commission

Monday 14 and Tuesday 15
December 2009

UNION INTERNATIONALE
DES CHEMINS DE FER
16, rue Jean Rey
75015 PARIS



2nd IRPA Workshop on Radiation Protection Culture
Thursday 10 and Friday 11 February 2011



Jornada de Cultura
de la Protección
Radiológica

Día 15 de junio de 2.009

Cátedra Rafael Mariño del Instituto
de Ingeniería de España, Madrid

El objeto de esta Jornada es presentar las manifestaciones concretas de la cultura organizativa y su influencia en los resultados y en la protección radiológica de la radiación y dar a conocer las competencias mínimas y potenciales organizativas necesarias para generar los comportamientos adecuados en organizaciones que gestionen situaciones de radiación de riesgo.

La Jornada está dirigida a profesionales de la protección radiológica con responsabilidades sobre la instalación y en particular que la operen.

CULTURA ORGANIZATIVA, CULTURA DE SEGURIDAD Y DE LA PROTECCIÓN RADIOLÓGICA. INTEGRACIÓN DE LA CULTURA EN EL MODELO DE GESTIÓN, EVALUACIONES PRODUCTIVAS DE LA CULTURA, TÉCNICAS DE BIENESTAR, MEDIDAS DE LA CULTURA DE LA PROTECCIÓN RADIOLÓGICA, INFLUENCIA DE LOS OBJETIVOS Y DE LOS COSTORES EN EL DESARROLLO DE LA CULTURA: LIDERAZGO, COMPETENCIAS DIRECTIVAS.



con la colaboración de:



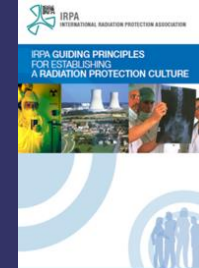
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Questions during the IRPA meetings

- ☐ 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**?

The IRPA Guide



Objectives

- to foster a belief in the success of cultural approaches,
- and to provide guidance to help equip radiation protection professionals to promote a successful RP culture in their organisation and workplace.

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.

Content

1. Purpose and scope
2. Introduction
3. Elements and Traits of an RP Culture
4. Developing an RP Culture, and Criteria of Success
5. Assessment of RP Culture
6. The Role of RP Professionals
7. Involvement with Other Stakeholders
8. The Role of Associate Societies
9. Conclusion

Safety Culture vs RP Culture

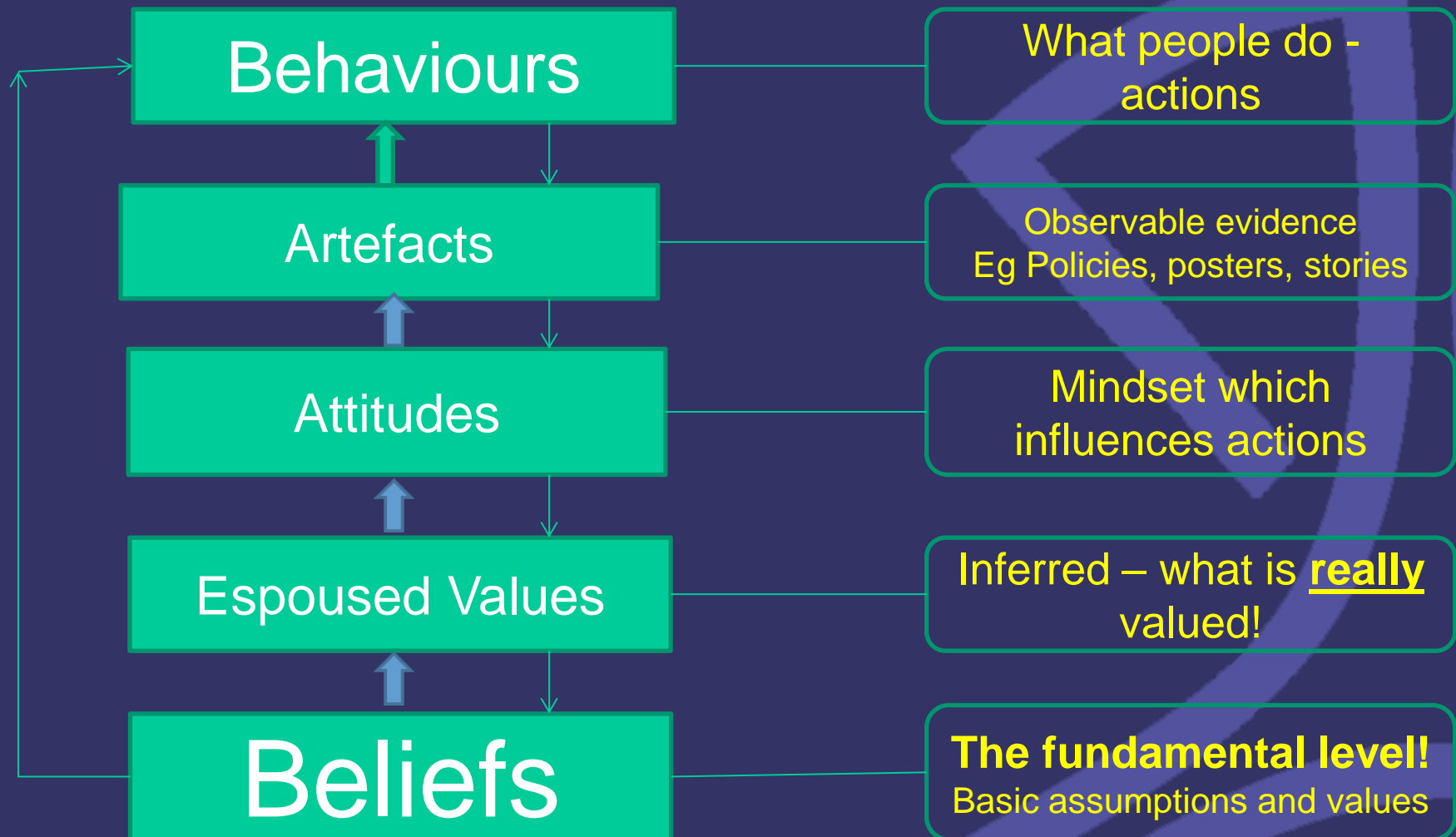
Safety culture is a concept that has been defined by different institutions, organizations, and there is a common understanding of its meaning

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



Safety Culture

(according to Schein)



RP culture development and improvement

What are the ways to impact 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 with of **a 'blame-free' policy to report**



Example: 9 behavioral elements of general safety culture from U.S.NRC



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 <u>without fear</u>
Effective Safety	Communication	Respectful Work Environment , Questioning Attitude
<u>Communications focus on safety</u>	Trust and respect permeate the organization	Individuals identify discrepancies in existing conditions & inappropriate actions



The zero risk doesn't exist , Process must be fault tolerant that's why

- ☐ **Responsibilities must be Understood**
- ☐ **Responsibilities must be Manageable**
- ☐ **Early Warnings must be Available**
- ☐ **Must Learn from others Mistakes**
- ☐ **Corrective Actions must Occur**
- ☐ **Audits must be Conducted**
- ☐ **Peer Review must Happen**
- ☐ **Process should be Accredited**

Assessment of RP culture - 1



- The assessment tools of radiation protection culture can be done in several ways,
- using a combination of quantitative and qualitative tools 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 for such a given criteria**



Assessment of RP culture - 2

- At the local level, a RP application could provide for example:
 - A **formalized procedure** to assure that the workers know the principles of RP
 - Confirm that 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**: 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.**



Role of RP professionals

The RP practitioners must be aware that interaction with wider stakeholders is essential for 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**
- **Universities**



Next Steps : The IRPA-IOMP- WHO initiative

- IRPA wanted to explore the possibility of developing more practical guidance for the medical sector and launched a new initiative in collaboration with IOMP , WHO and all RP professionals

Topics chosen for discussion for the WGs during the workshop in Buenos Aires:

- the key components of radiation protection culture,
- the current perspective on RP culture in medicine in South American countries,
- and current priorities for establishing a strong culture in medicine.



Next workshop in Geneva in December 2015 !

Conclusion

- 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**. It must be an **ongoing dialogue**
 - Among safety professionals, organizational management and the workforce
 - Between organizations and relevant stakeholders
- Associate Societies and all RP professionals should consider how best to use the IRPA guidance to develop RP culture within their national systems and organisations
- In due course, to feedback so that the IRPA guidance can be improved and expanded

Conclusion



These first guiding principles on RPC provide also an opportunity for celebrating IRPA's 50th IRPA anniversary

This first document 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>