

Training in Radiation Protection: Developing expertise and culture in radiation protection

*(Outputs from a dedicated SFRP symposium organized in
2016 in Paris, France)*

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Organised by the Teaching Commission and the Technical Protection section of the SFRP (Société Française de Radioprotection - French Radiation Protection Society), this symposium was held in Paris on June 14-15, 2016.

The objectives of this symposium were to provide the actors of radiation protection with a clear vision on the radiation protection expertise and culture issues.

In this presentation, I will provide a bird's eye view on some points discussed during that symposium.

- I. INITIAL AND CONTINUOUS EDUCATION AND TRAINING FOR RADIATION PROTECTION PROFESSIONALS**

- II. ENHANCING RADIATION PROTECTION CULTURE AND SKILLS FOR PROFESSIONALS**

- III. INTEGRATION OF NEW EDUCATIONAL TECHNIQUES AND METHODS**

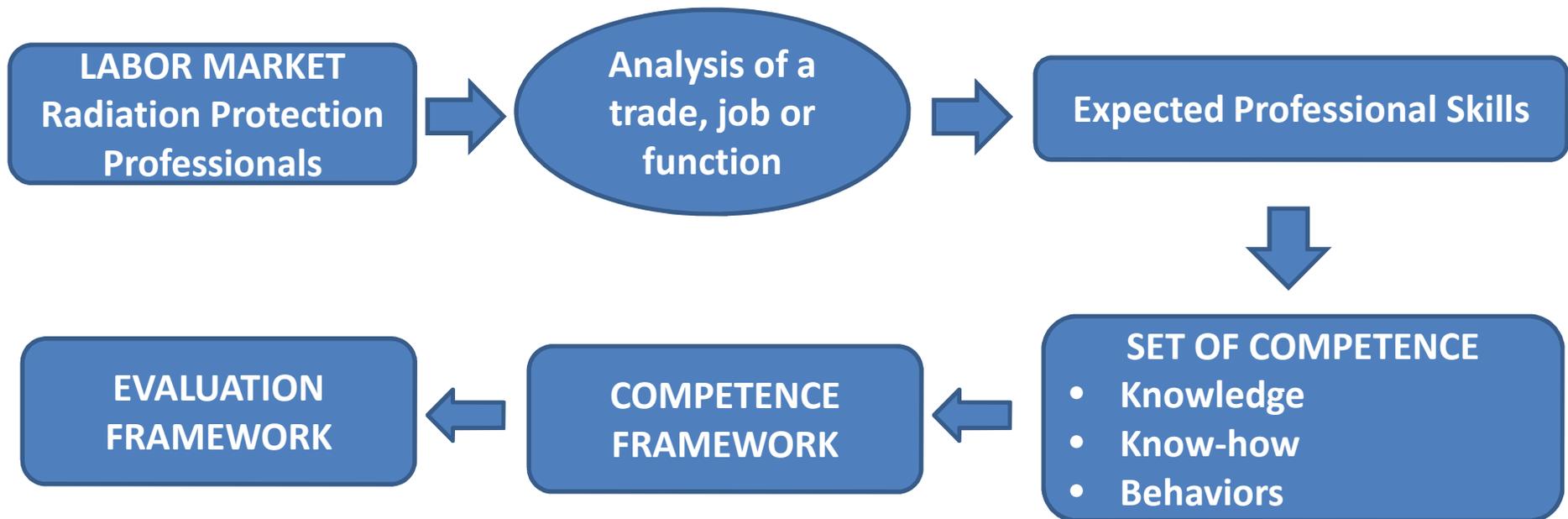


INITIAL AND CONTINUOUS EDUCATION AND TRAINING FOR RADIATION PROTECTION PROFESSIONALS

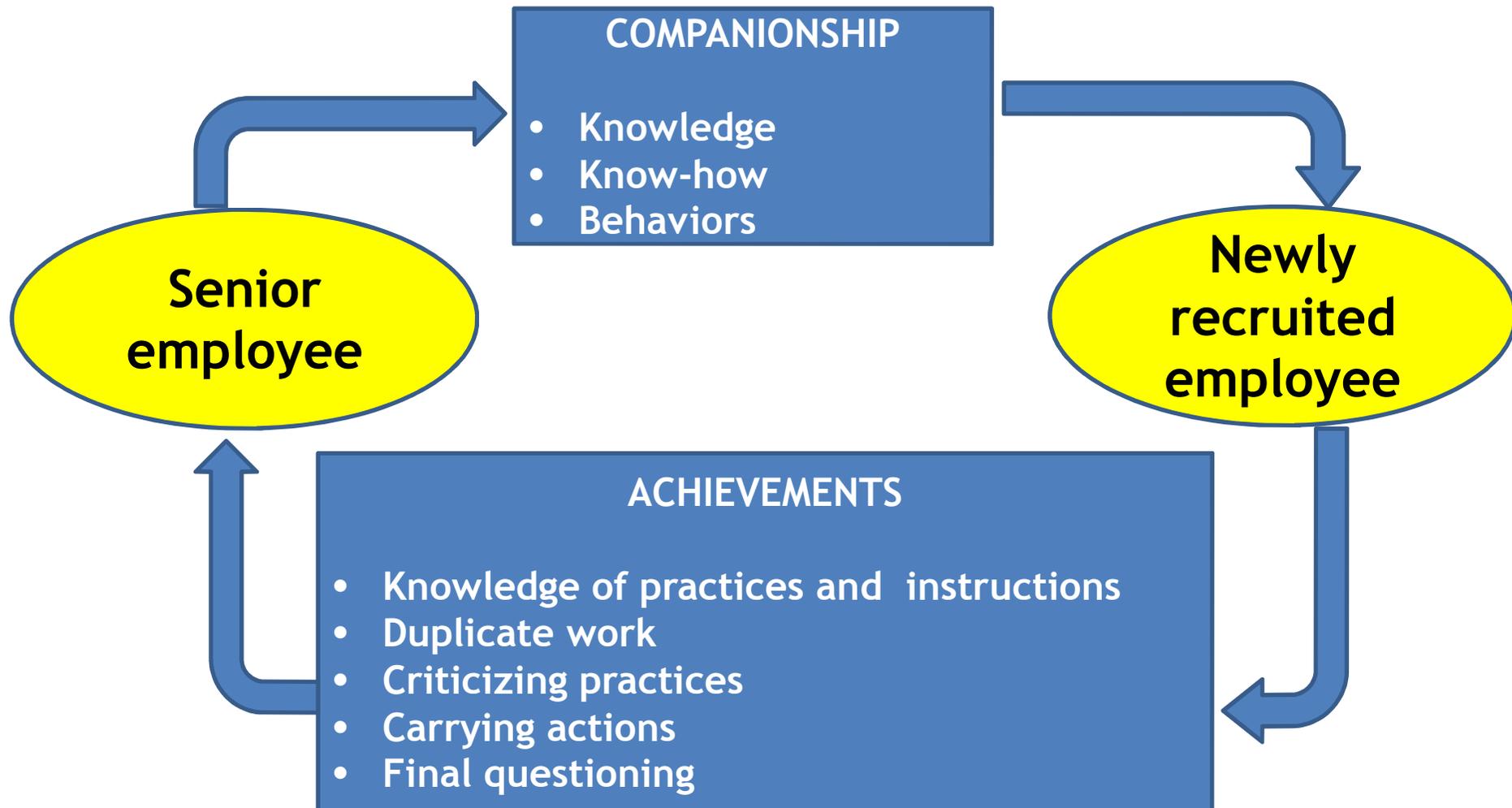


- 1- Development of a competency framework
- 2- Companionship as an in-company learning
- 3- Continuous training of PCR

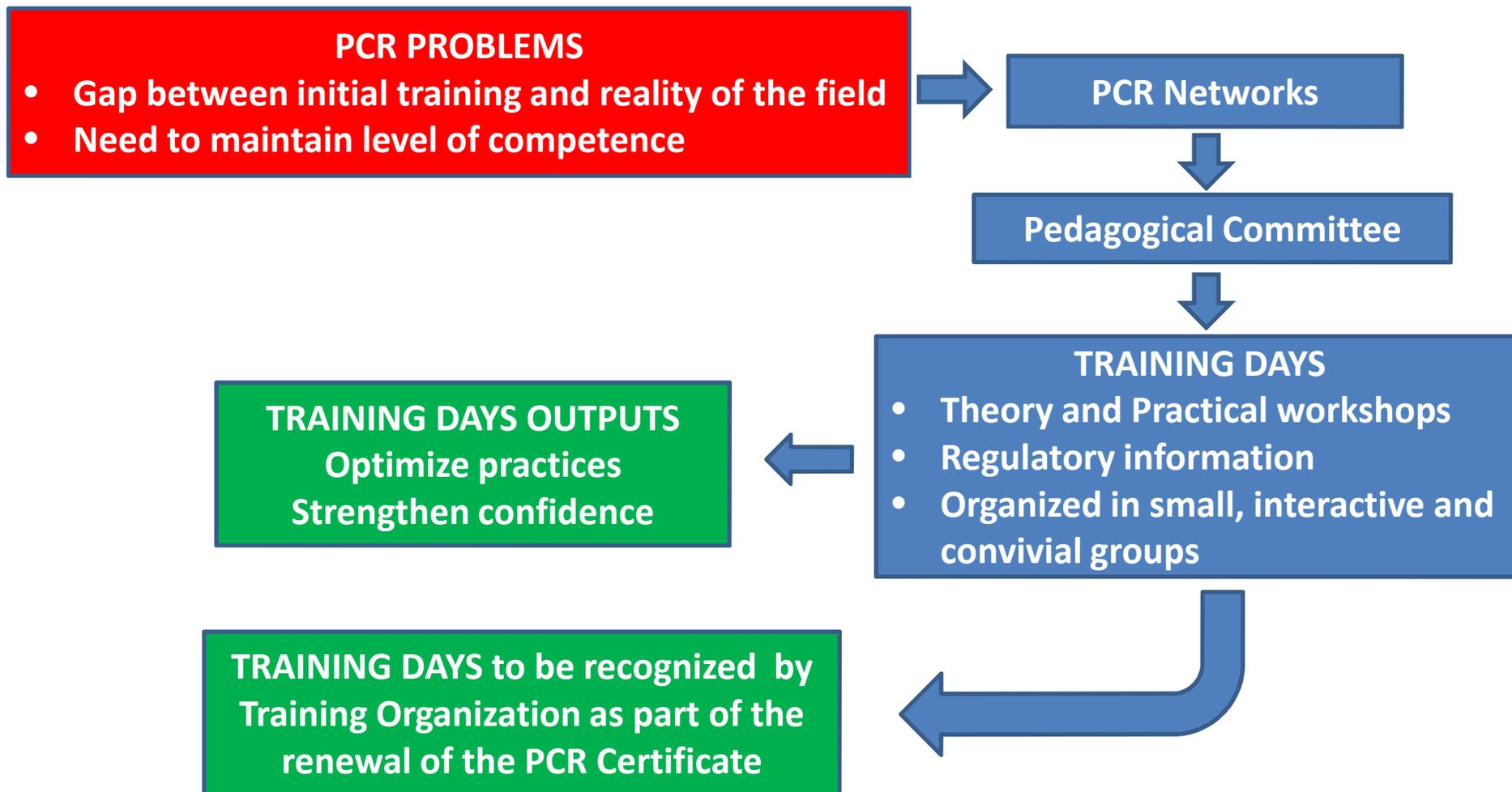
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ENHANCING RADIATION PROTECTION CULTURE AND SKILLS FOR PROFESSIONALS



- 1- Evaluating training performance: the EDF experience
- 2- The ANCCLI experience: Developing Radiation Protection Skills and Culture to promote citizen expertise.
- 3- Culture of Radiation Protection: Patients, physicians and nursing personnel are all hospital radiation protection actors.

-1- Evaluating training performance: the EDF experience

EVALUATION OF TRAINING PERFORMANCE = IDENTIFICATION OF AREAS OF PROGRESS

- To facilitate understanding of the rules and their appropriation
- To promote training in working situations
- To take into account the different learning modalities and lessons learned

EVALUATION METHODOLOGY

- Participatory approach bringing together :
 - prescribers
 - designers
 - trainers
 - trainees
- Use of simulation of intervention scenarios, punctuated by disruption and events, in which the team of trainees must identify the strategy(s) of possible actions to manage these working situations

-2- The ANCCLI experience: Developing Radiation Protection Skills and Culture to promote citizen expertise.

ANCCLI main objective

to promote citizen expertise via the development of radiation protection skills and culture of CLI members

For instance, ANCCLI organizes training seminars with IRSN on :

- Waste (HA MAVL - HA MALL)
- Environment and health
- Post-accident
- Dismantling
- Organizational and Human Social Factors
- Transport of radioactive substances

-3- Culture of Radiation Protection: Patients, physicians and nursing personnel are all hospital radiation protection actors.

The culture of radiation protection in the medical field has increased considerably over the last twelve years, but some problems persist :

In the operating room , there is little or no training in radiation protection

Doctors are very unaware of Good Practice Guide in radiology

Revision of radiation protection training for patients

New generation facilities, especially scanners
+
Increasing number of Medical Radiophysics Specialist

Introduction of radiation protection into the initial training of all doctors

Impact of these measures is followed in time by ASN Inspection reports and IRSN periodic reports concerning collection of doses under the DRL (Diagnostic Reference Levels) exposure of the French population

- 1- Distance Learning
- 2- Computer-assisted training at work in glove box
- 3- Integration of new information and communication technologies into training: Risk and Opportunity.

-1- Distance Learning

The University of Strasbourg TNRP (Nuclear Techniques and Radiation Protection) Professional license is a distance training which aims to give skills to work overall the professions of the nuclear sector.

STRENGTHS

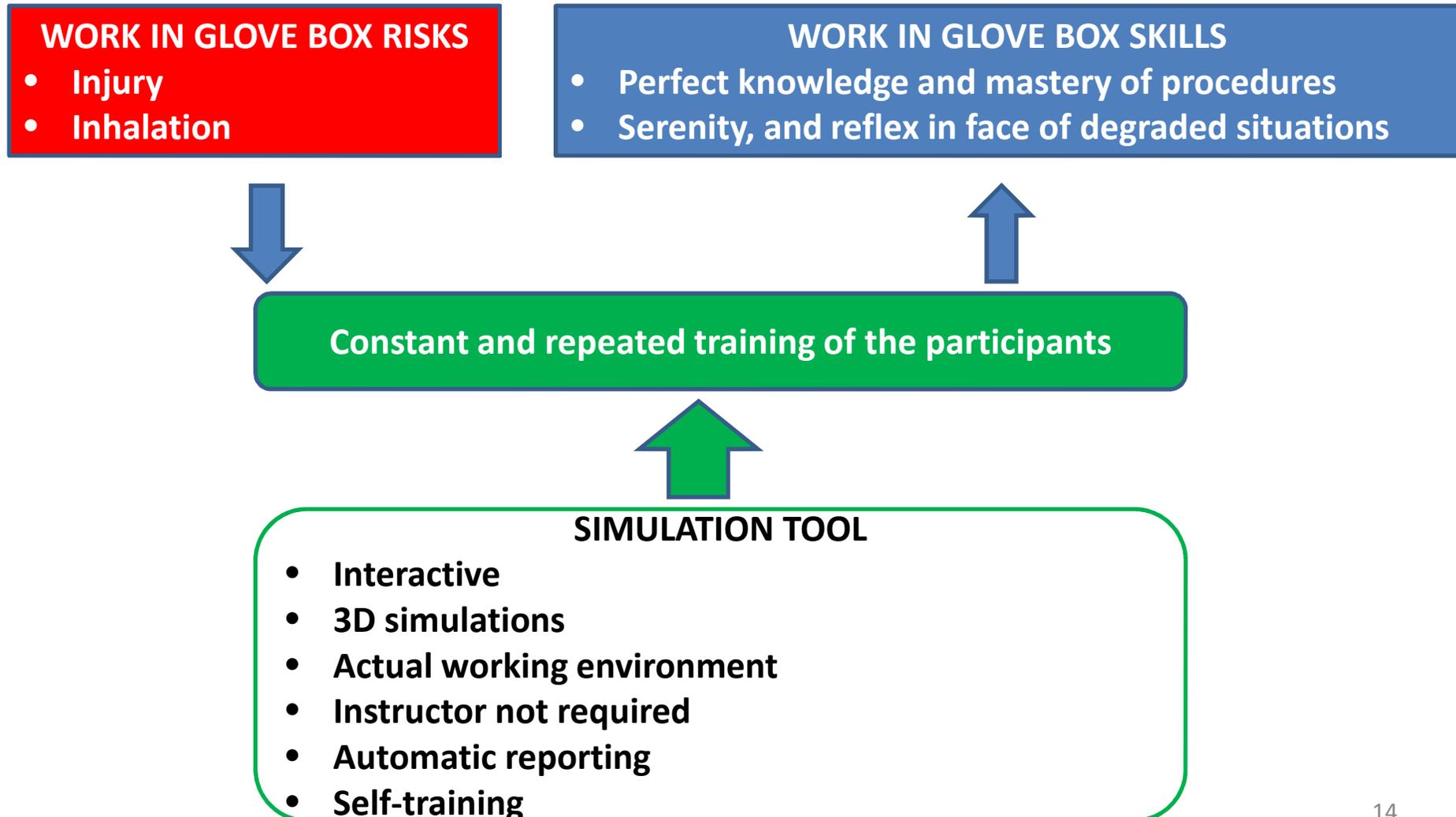
- Providing training to those prevented
- Personalized and customized follow-up
- Attractive technological innovation
- Educational inputs
- Didactic inputs

WEAKNESSES

- Opening threshold set at 7 registrants
- Technical problems
- Presence required for on-site lab and exams
- Risk of isolation and abandonment
- Need for recognition by the institution

The pedagogical team regretted the one-shot operation of this training with regard to the investment of more than five years to carry out this project.

-2- Computer-assisted training at work in glove box



-3- Integration of new information and communication technologies into training: Risk and Opportunity.

ROLE OF THE EXTENDED ENTERPRISE

to have a shared base of pedagogical modules between the companies and the operators
to take into account the specificities

NEW EDUCATIONAL TECHNICS AND METHODS

such as digital training put the individual at the center and authorizes the development of a digital culture of actors by the overcoming of barriers. The reorganization of skills development through the networking effects allows the alliance with the multitude of users and the developers of educational content

OUTPUTS FOR THE EXTENDED ENTERPRISE

The increase in the efficiency of training is followed by the increase in the factors of production

RISK

Thinking about the digital transition from the trainer's point of view alone

OPPORTUNITY

Thinking about the digital transition from the point of view of the learner and the necessary involvement of his / her management

At the end of the SFRP symposium, the general point of view was :

« Culture and competency in radiation protection are always in demand. Whatever your field of expertise, whatever your own knowledge, the future of radiation protection resides in training, may it be initial education, continuous training, using either classic or digital tools. »

Finally, the main output of this symposium was:

TRAINING IS A KEY ELEMENT TO IMPLEMENT RADIATION PROTECTION.

THANK YOU FOR YOUR ATTENTION !!

If you want more information on that symposium held in Paris, France on 14-15 June 2017, please go to the following SFRP website :

<http://www.sfrp.asso.fr/manifestations/manifestations/radioprotection-formation.html,9,38,0,0,2611>