DE LA RECHERCHE À L'INDUSTRIE

Ten years of experience feedback in dissemination of Radiation Protection culture:

1,500 high school students involved in

"Radiation Protection Workshops"

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OBJECTIVES

- Initiate a **citizen approach** by sharing knowledge to acquire **scientific and societal bases** in Radiation Protection for high-school students (16 to 18y)

- **Promote** the Radiation Protection culture through a **multidisciplinary approach**: scientific, economic, historical, philosophical ...

- Allow the high-school students **to better know professional world**:
  - ⇨ training courses and activities in RP to develop expertise and interest in research

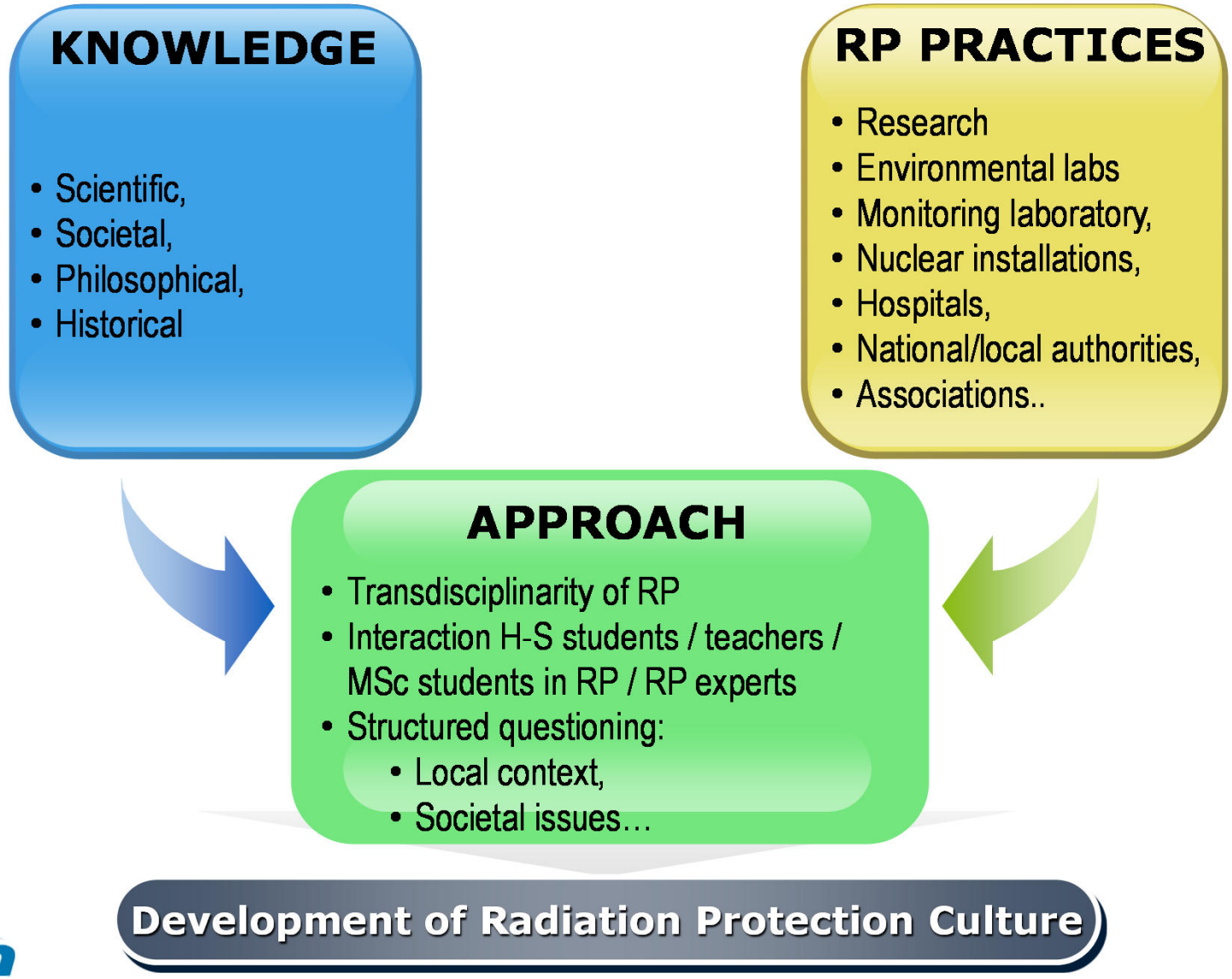
METHODOLOGY

- **Theoretical** part: on the fundamental of RP in classroom carried out by professor with involvement of experts. From September till March, on topic(s) selected with teachers according to local concerns or issues

- **Practical experiments**: manipulations, visits of technical installations, realization of technical experiments organized / facilitated by experts

- **Restitution of the results** taken the form of presentations in plenary sessions at international high school meetings (150 - 200 participants end of March)

METHODOLOGICAL APPROACH OF RADIATION PROTECTION WORKSHOPS



RADIATION PROTECTION CONCERNED BY:

Legislation

Mathematical
Physical
Chemistry

Epidemiology

Economy

Medicine

RADIATION PROTECTION

Psychology

Sociology

Biology

radiobiology

Management

Metrology

Engineering

Environment

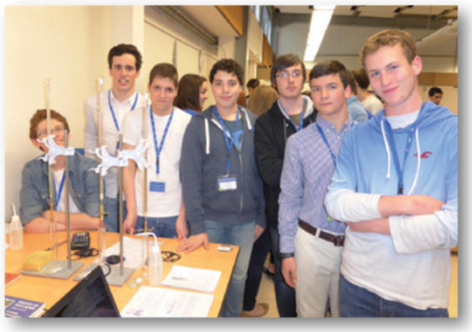
HIGH-STUDENTS HAD INTEREST IN ...

SOME TOPICS

- Risk estimate for human and environment
- Management of domestic radon exposure
- Biological effects of ionising radiations
- Survey of environmental radioactivity
- Radiation protection of workers and patients in hospital
- Scientific and technical bases of radiation protection (radioactivity, detection of ionising radiations…)
- Radioactive waste management and transportation
- Management of nuclear accidents
- How is the life in the contaminated area around Chernobyl
- Comparison /similarities Chernobyl and Fukushima accidents
- …and 108 more topics

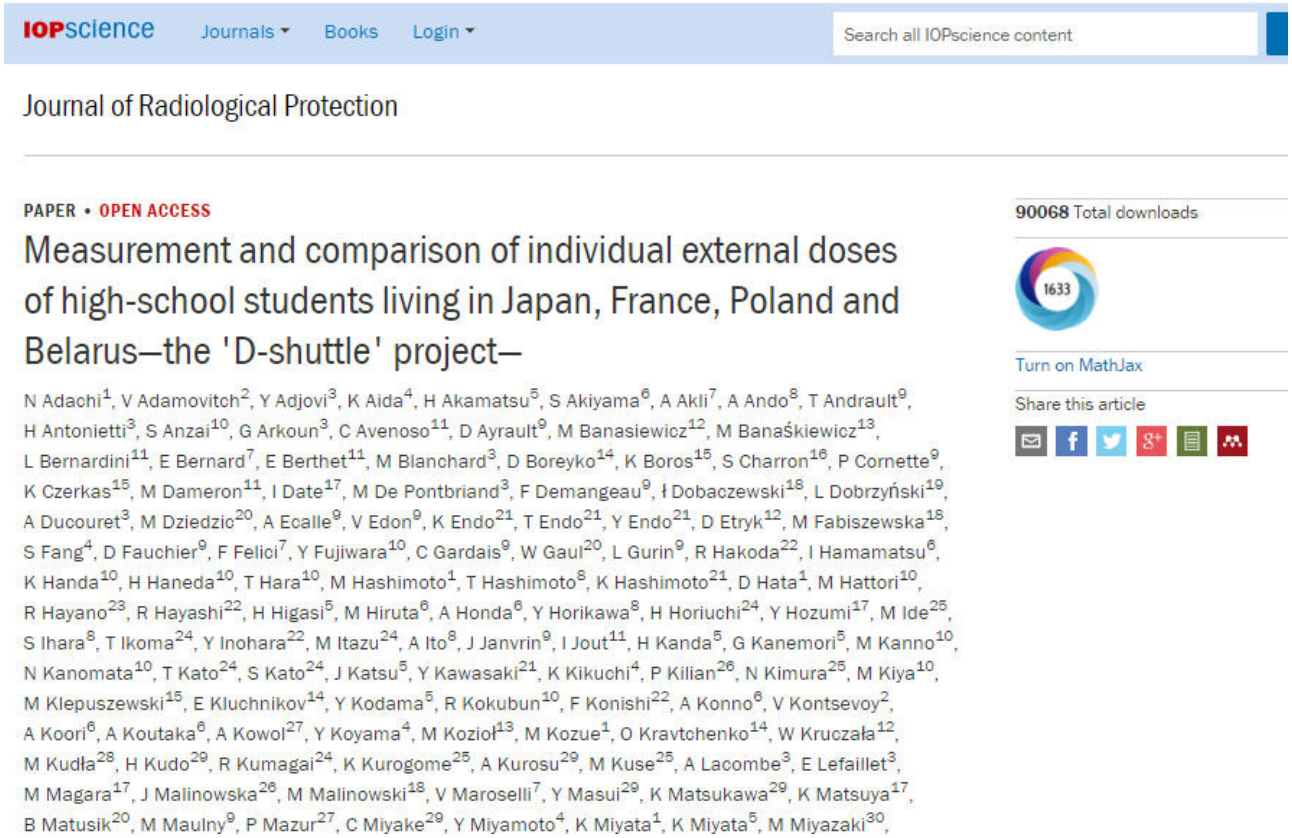
KEY FIGURES

- **Countries:**
  - France (7-10), Ukraine (1-2), Belarus (2), Germany, Moldavia, Japan, Colombia.
  - Previous events: Romania, Italia and Morocco
- **Number**: 150 to 200 participants each year; 1 500 total
- **Language:** 90% in French, ~ 10% English and Russian
- **Programme:**
  - 3 half-day of high-school lectures (15 minutes each)
  - 1 half-day for workshop (radon experiments, calculation, posters…)
  - 1 half-day for visits (nuclear facilities, research labs…)
  - 2 social events
- **Excellent feedback +++**
- **~ 60,000 €**



RESULTS: AN EXAMPLE

- Contribution of high-school students from Japan, France, Poland and Belarus is effective.
- **130 co-authors** signed a scientific article in **Journal of Radiological Protection** downloaded **90,068 times**!



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Journal of Radiological Protection

PAPER • OPEN ACCESS

Measurement and comparison of individual external doses of high-school students living in Japan, France, Poland and Belarus—the 'D-shuttle' project—

N Adachi[1], V Adamovitch[2], Y Adjovi[3], K Aida[4], H Akamatsu[5], S Akiyama[6], A Akli[7], A Ando[8], T Andrault[9], H Antonietti[3], S Anzai[10], G Arkoun[3], C Avenoso[11], D Ayrault[9], M Banasiewicz[12], M Banaśkiewicz[13], L Bernardini[11], E Bernard[7], E Berthet[11], M Blanchard[3], D Boreyko[14], K Boros[15], S Charron[16], P Cornette[9], K Czerkas[15], M Dameron[11], I Date[17], M De Pontbriand[3], F Demangeau[9], ł Dobaczewski[18], L Dobrzyński[19], A Ducouret[3], M Dziedzic[20], A Ecalle[9], V Edon[9], K Endo[21], T Endo[21], Y Endo[21], D Etryk[12], M Fabiszewska[18], S Fang[4], D Fauchier[9], F Felici[7], Y Fujiwara[10], C Gardais[9], W Gaul[20], L Gurin[9], R Hakoda[22], I Hamamatsu[6], K Handa[10], H Haneda[10], T Hara[10], M Hashimoto[1], T Hashimoto[8], K Hashimoto[21], D Hata[1], M Hattori[10], R Hayano[23], R Hayashi[22], H Higasi[5], M Hiruta[6], A Honda[6], Y Horikawa[8], H Horiuchi[24], Y Hozumi[17], M Ide[25], S Ihara[8], T Ikoma[24], Y Inohara[22], M Itazu[24], A Ito[8], J Janvrin[9], I Jout[11], H Kanda[5], G Kanemori[5], M Kanno[10], N Kanomata[10], T Kato[24], S Kato[24], J Katsu[5], Y Kawasaki[21], K Kikuchi[4], P Kilian[26], N Kimura[25], M Kiya[10], M Klepuszewski[15], E Kluchnikov[14], Y Kodama[5], R Kokubun[10], F Konishi[22], A Konno[6], V Kontsevoy[2], A Koori[6], A Koutaka[6], A Kowol[27], Y Koyama[4], M Kozioł[13], M Kozue[1], O Kravtchenko[14], W Kruczała[12], M Kudła[28], H Kudo[29], R Kumagai[24], K Kurogome[25], A Kurosu[29], M Kuse[25], A Lacombe[3], E Lefaillet[3], M Magara[17], J Malinowska[26], M Malinowski[18], V Maroselli[7], Y Masui[29], K Matsukawa[29], K Matsuya[17], B Matusik[20], M Maulny[9], P Mazur[27], C Miyake[29], Y Miyamoto[4], K Miyata[1], K Miyata[5], M Miyazaki[30],

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CONCLUSION AND PERSPECTIVES

- **Conditions for success**
  - Voluntary basis and high-school student are highly motivated
  - Diversity of topics offered by RP (industry, medical, environment)
  - Practical approach in small groups in each high-school
  - …and for families, disconnected from nuclear operators
- **Evolution from "pilot" action to larger scale project and increase involving stakeholders**

ETRAP 2017 → Opportunity to:

  - Increase participating countries
  - Create regional "High-school Radiation Protection Workshop" (IRPA?, national RP association?)

INSTN @ PARIS-SACLAY
MARCH 2017 10 YEARS

For more info and videos

www.lesateliersdelaradioprotection.com

SOCIAL EVENTS FOR HIGH SCOOL STUDENTS

An unique experience!!

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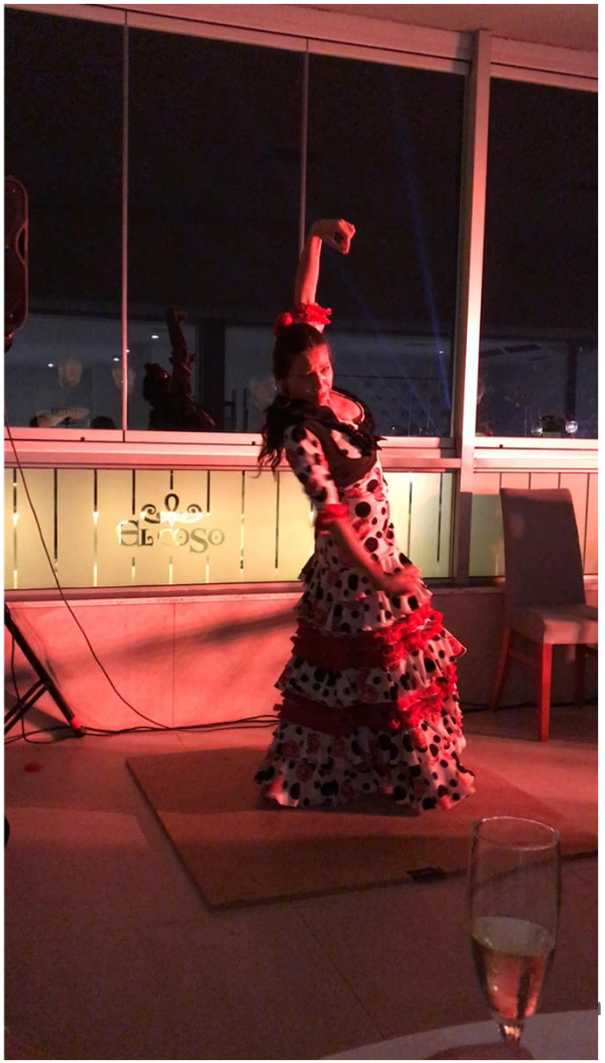

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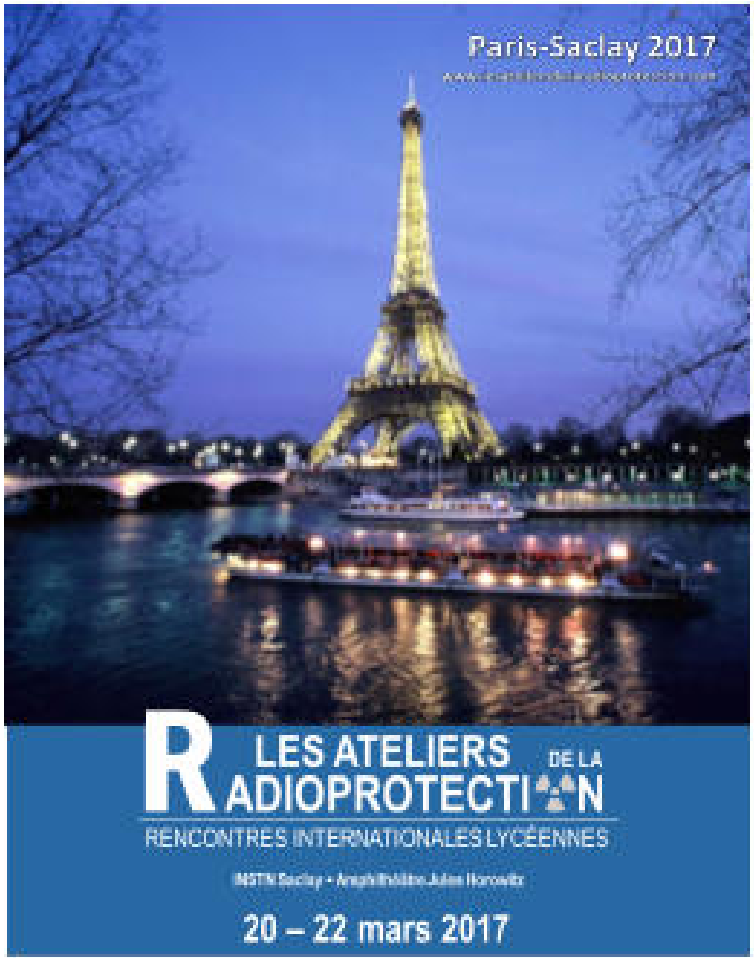
THANK YOU FOR YOUR ATTENTION!



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