HCERES evaluation of Laboratoires de la vallée d'Orsay

- CSNSM
- IMNC
- IPNO
- LAL
- LPT

Research Activity Support

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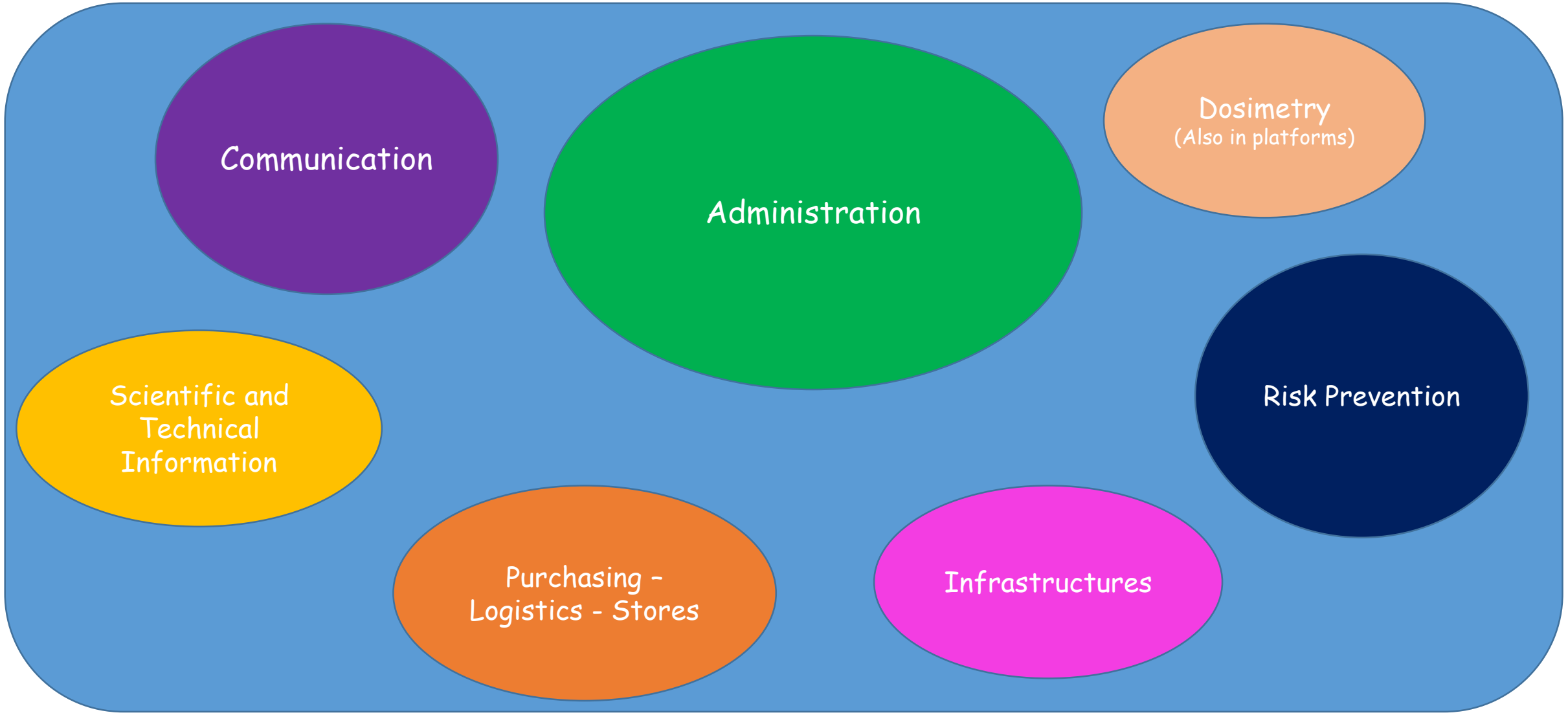
Contributors : Head of the different support services

14-17 January 2019

Overview of Research Activity Support



Staff: 59 Admin + 5 Com +2 STI + 14 PLS + 14 Infra + 11 Risk + 5 Dosim = 110

Administration

Administration

This service is found without exception in all laboratories

The administrator, under the authority of the director, manages and leads the administrative services. He also has a role of accompanying and advice within the management of the laboratory.
Administration includes **many different activities**:

- **Financial management**: budget (diversified origins), own resources, expenditure, monitoring, control and justification
- Administrative management of projects
- Legal assistance

- **Human resources**: professional life event, social relations, job forecasting, recruitment, labs and IN2P3/DR4/Univ interactions
- Continuing education

- Local administrative assistants

Staff: 59 people

Administration

Total budget (excluding salaries) to be managed:

Institutions (Universities and CNRS): 6.4 M€ in 2017
Contracts: ~14.3 M€ to be spread over the remaining duration of the contracts (ANR, European contracts, ERC, region, department, industrial contracts, CNES, ANDRA, Labex P2IO, PALM, Universities, P2I department,....)

Number of missions / year: ~3700 (of which ~ half abroad)

Number of orders: ~8000

Number of employment contracts (interns, fixed-term contracts, permanent...): ~340

Number of staff training courses: ~600
Number of people trained: ~350

Figures but not only: privileged contacts for all researchers and IT → advice, expertise, coordination…

Administration

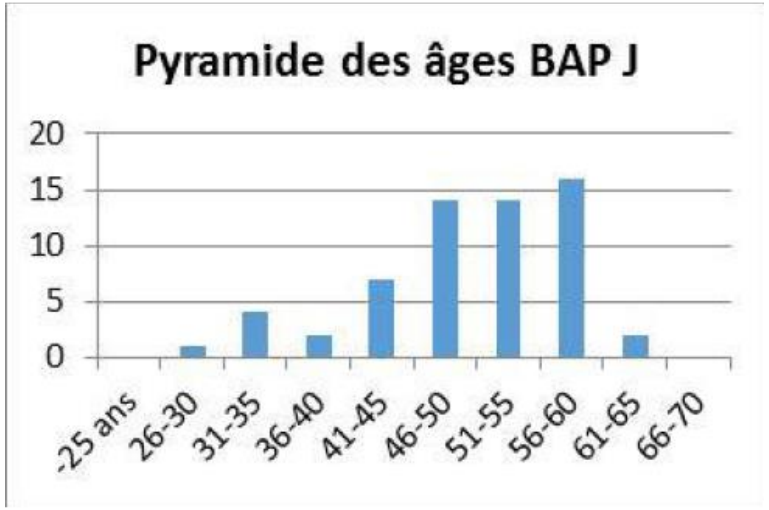
Analyse SWOT

✓ **Strengths**
Local services / Responsiveness / Research support
Delegation of signature
Implementation of dematerialization

✓ **Weaknesses**
Tools not necessarily adapted to the problems of laboratories.
Diversity of tools by institutions (Univ + CNRS)
Diversity of functioning and rules of institutions (Univ + CNRS)
Diversity of funding sources (management rules of each funder)

✓ **Opportunities**
Evolution of skills and functions
Career development

✓ **Threats**
Retirements: 1/3 of the agents are over 55 years old….
Recruitment difficulties
Increasingly complex and restrictive regulatory requirements



Communication

Communication

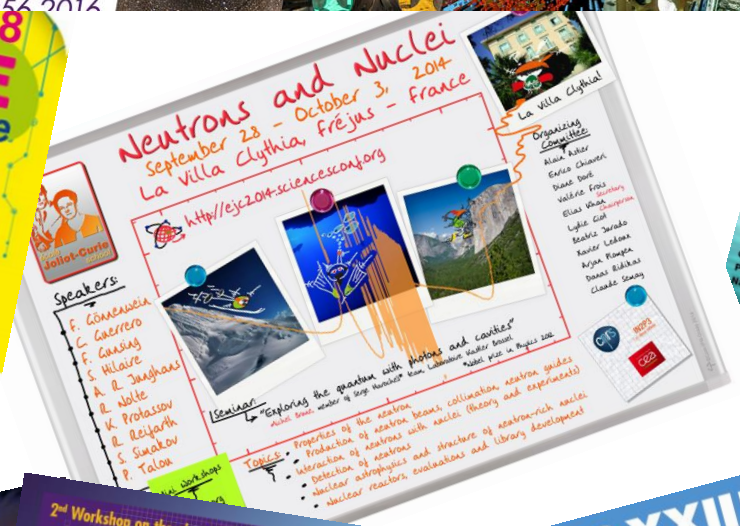
In almost all laboratories, at least one part-time person is in charge of communication.
A very cross-functional service, the communication is at the service of a management will/strategy.

Tasks:

- organization of events:
  - conferences, thematic schools → national or international scope
  - Lab visits (official visits, students)
  - Local events: 60 years IPNO+LAL, science festival, Masterclasses…
- Internal communication (IPNO Hebdo, LAL Gazette) and external communication
- Websites
- Making of posters, logos, advertising medium for the valorisation…
- Social networks (twitter)
- History of our labs → highlight of the heritage of scientific objects (exhibition in the labs and on campus)

Staff: 5 staff (3.7 FTEs) to carry out all these tasks

Communication



Communication

Example of a communication action in collaboration with the university: illumination of the ALTO platform (here projection of the portraits of Marie Curie and Irène Joliot-Curie)

Communication

Analyse SWOT

✓ **Strengths**
5 people (3,7 FTEs)

✓ **Weaknesses**
Complicated administrative procedures in managing event budgets
Serve the equivalent of the 5 laboratories with the existing staff of IPNO and LAL.

✓ **Opportunities**
Create a single communication service attached to the management
Highlight our heritage and archives

✓ **Threats**
Recruitment difficulties
The departures (retirement, transfer) of communication people will probably not be replaced

Scientific and Technical Information

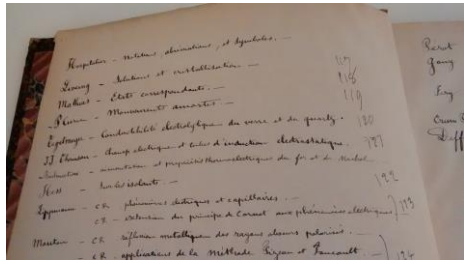
Scientific and Technical Information

14,000 books in each of the LAL and IPNO libraries and about 2000 at the CSNSM

Tasks:

- management of information resources accessible on site in libraries or online.
- identification and valorisation of publications and published communications of laboratory staff (more than 300 references per year and per laboratory)
- collaborative work within the IN2P3 Thematic Network in Scientific and Technical Information (Democrite) and in the Paris-Sud documentary commission.
- History of our labs archives (including photo library)

Staff: 2 librarians



Scientific and Technical Information

Analyse SWOT

✓ **Strengths**
2 librarians

✓ **Weaknesses**
Serve the equivalent of the 5 laboratories with 2 librarians

✓ **Opportunities**
Create a STI service
Highlight our heritage and archives
Reorganizing libraries

✓ **Threats**
Legal obligations related to the Digital Law.

Purchasing – Logistics - Stores

Purchasing – Logistics - Stores

Stores only at LAL and IPNO

Tasks:
Purchase: 260 k€ (IPNO+LAL) of stocked equipment / year + 2M€ of non-stocked equipment

Stores: 4000 (IPNO) + 6600 (LAL) items in stock in both stores
The stores serve about 90 laboratories.
Purchase of furniture and management of photocopiers, work clothing and laundry; management of liquid nitrogen in bulk and 350 gas cylinders; management of technological waste; management of clean rooms...

Raw material cutting workshop

Logistics:
Transport and customs clearance in national and international
Receipt of 3800 parcels at the LAL and IPNO stores. Shipment of 300 parcels
Vehicles: 19 vehicles in total, including 6 at CERN

Staff: 14 FTEs at LAL+IPNO

Purchasing – Logistics - Stores

Analyse SWOT

✓ **Strengths**

Maintain 2 delivery and distribution points
Same inventory management software (Scribe)
Raw material cutting workshop

✓ **Weaknesses**

The challenge of being well organized when working methods are not the same.

✓ **Opportunities**

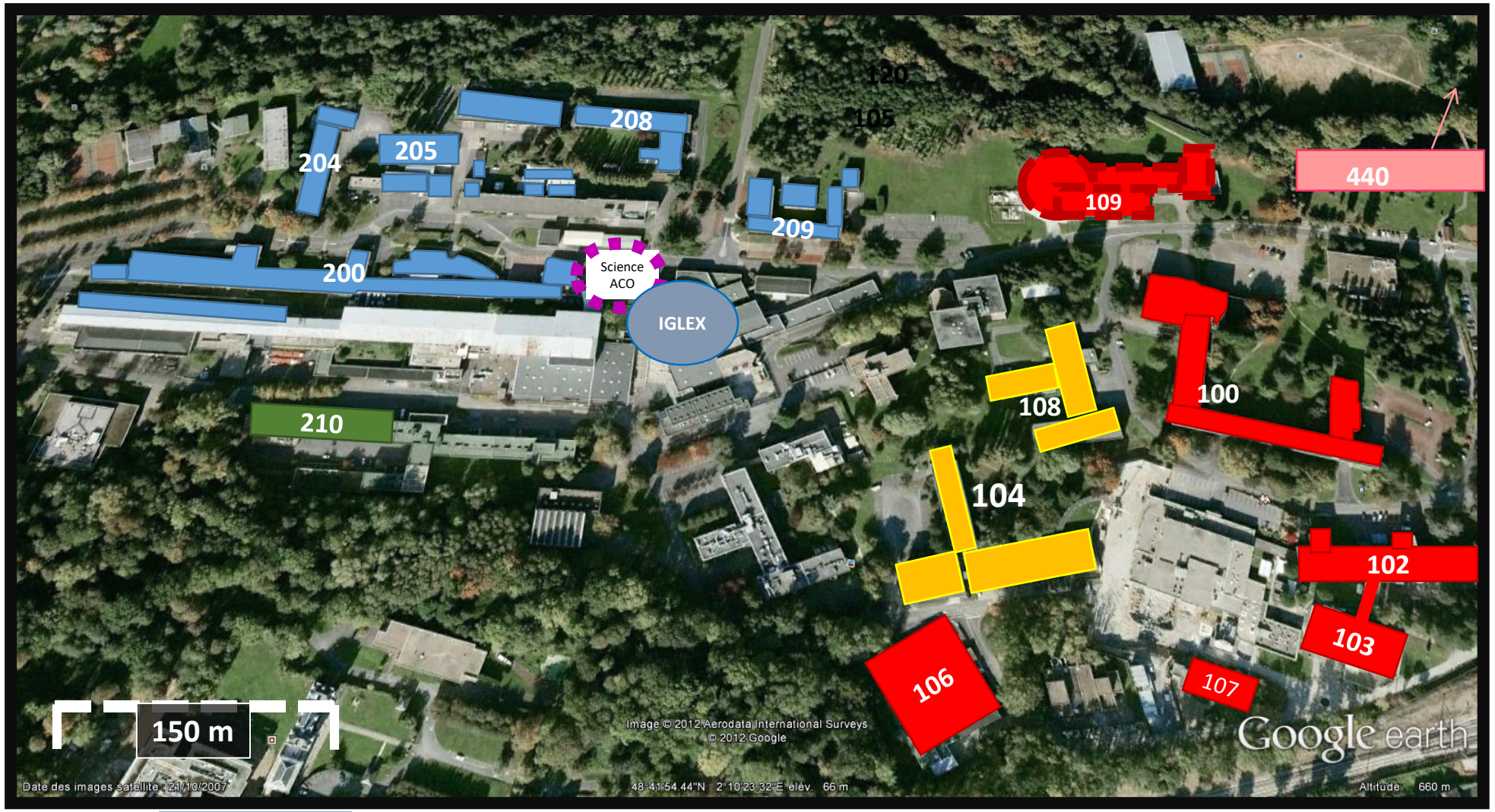
Mutualize the vehicle fleet and equipment transport
Harmonize working methods

✓ **Threats**

2 retirements at IPNO and 1 at LAL expected within 3 years
Decline of stores (faster and faster deliveries from suppliers, justification of European contracts, etc.)

Infrastructures

Infrastructures



LAL | CSNSM | IPNO | IMNC | LPT

Surface of buildings ~53,000 m² to maintain. Around fifteen buildings, mainly of the UPSud

IPNO 22 000 m²
LAL 20000 m²
CSNSM 5500 m²
IMNC 2000 m²
LPT 1300 m²

Infrastructures

LAL + IPNO + CSNSM

Tasks:
Buildings: Organization of the laboratory's real estate development, relations with the institutions (CNRS, Univ). Maintain up-to-date building plans.

Infrastructure:
- Ensures the sustainability of buildings and rehabilitation and redevelopment work
- Integrator of new experiences, platforms and equipment in our premises
- Study of project installation, drafting of project management files, management of works contracts (IGLEX, PRAE, XFEL, CAPTINNOV, CORTO, LASERIX, Vide et Surface)

Technical assistance for scientific experiments and facilities

Staff: 14 peoples

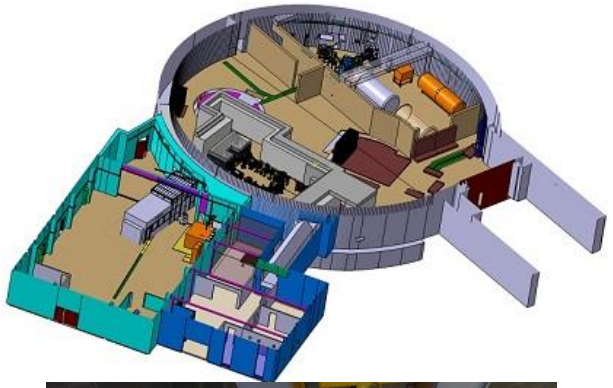
Infrastructures

Some examples of achievements and interventions

Construction of an ISO7 clean room

Flooding in 2016

Creating a power supply



Example of work related to the CPER: the IGLEX

Infrastructures

Analyse SWOT

✓ **Strengths**

Reactive teams that can work on our buildings and infrastructures
Multidisciplinary, adaptability to project constraints
Ability to analyse the situations

✓ **Weaknesses**

60-year-old buildings and infrastructure to be maintained
Ensure the simultaneous functions of project management of large-scale works and various technical interventions on experiments and buildings

✓ **Opportunities**

The CPER allows the implementation of new large scientific instruments and the rehabilitation of buildings.

✓ **Threats**

Retirements of between 0 and 6 agents by 2025
Recruitment difficulties

Risk prevention

Risk prevention

Concerns all laboratories
On the 21 hazardous jobs listed in the OJ, 19 are listed in our laboratories

- Ionizing radiation
- Chemical and biological risk
- Laser risk….

Examples of very complicated files to be investigated and maintained and/or periodically renewed:

- Single Occupational Risk Assessment Document (DUERP)
- Authorization to hold and use ionizing radiation sources (ASN)
- Accounting and physical monitoring of nuclear materials (MN)
- Classified installations for the protection of the environment (ICPE)
- Specificities related to biological risk management (BIO)
- Animal Experiment Files

Staff: 10.5 FTEs

Risk prevention

Analyse SWOT

✓ **Strengths**

- High-level competences in the requested fields, particularly in the field of radiation detection.
- Experience on short-term (limited ASN authorization) and long-term projects for national and international collaborations.
- Good recognising at the level of CNRS/UPSud and some company thanks to the expertise in the field of inspection up to 2017
- A part of the competences (simulations) and of the fixed and portable devices (Gamma spectrometer…) can be considered as an advantage for knowledge transfer.
- Quality insurance expertise

✓ **Weaknesses**

- Important turnover of the staff. Risk to loose expertise and competence.
- Lack of manpower (see last ASN inspection)
- Aging infrastructures generating increasing costs for security upgrades.
- More and more regulatory requirements

✓ **Opportunities**

- Project "Refondation des laboratoires": reduce the fragmentation of the teams working on the question of risk prevention.
- Support on the prevention and safety side of new major machine or platform projects as soon as they emerge,

✓ **Threats**

- Simulation expertise (FLUKA code) based on one person.
- Hiring difficulties

Dosimetry

Dosimetry

(Also presented in platforms)

Tasks:
Monitoring of external exposure to ionizing radiation by passive dosimetry techniques.

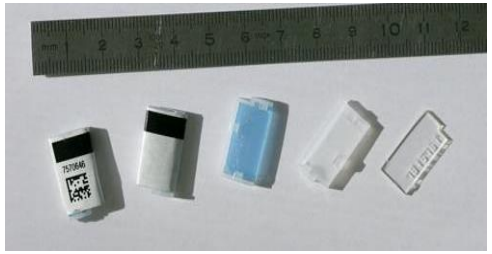
Approval issued by the ASN and accreditation according to ISO 17025 issued by COFRAC for worker dosimetry monitoring (DOSIM)

RPL and neutron techniques for whole body exposure
Outsourcing of the TLD technique for extremity exposure (from 01/01/2019)

~110 laboratory customers throughout France CNRS or affiliated
In particular for IMNC, CSNSM, LAL and IPNO

13500 dosimeters per year
1900 agents monitored
700 environments monitored

Staff: 5 FTEs
http://ipnwww.in2p3.fr/Dosimetrie



Dosimetry

Analyse SWOT

✓ **Strengths**
- High technical expertise
- High flexibility to answer to the customer requests.
- Increase of the versatility of the members
- Robustness and reliability of measurement devices
- Long experience in the service provision

✓ **Weaknesses**
- Despite an important effort to develop the versatility on some process, only one person is authorized
- Increase of the norm requirements. This has a cost in term of money and work force.

✓ **Opportunities**
- New offer in crystalline lens dosimetry thanks to subcontracting of the extremity dosimetry.
- Improvement of measurement systems due to the evolutions of the norms and regulations.
- CPER, adaptation and renovation of the premises (building 102)

✓ **Threats**
- Risk of losing some customers because of the subcontracting of the extremity dosimetry.
- Risk of delay on some processes because there is only one authorized person.
- Increase of the costs, compared to the profit, because of the evolutions of the norms and regulations.
- Hiring difficulties and therefore of perpetuation of authorizations

Thank you

Backup

Different BAP

BAP = Branche d'Activité Professionnelle (Branch of Professional Activity)

BAP J = Gestion et Pilotage (Management and Control)
BAP G = Patrimoine immobilier, Logistique, Restauration et Prévention (Real Estate, Logistics, Restoration and Prevention)
BAP F = Culture, Communication, Production et diffusion des savoirs (Culture, Communication, Production and dissemination of knowledge)
BAP C = Sciences de l'ingénieur et instrumentation scientifique (Engineering Sciences and Scientific Instrumentation)