



IAS - Institut d'astrophysique spatiale

Rapport Hcéres

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Rapport d'évaluation d'une entité de recherche. IAS - Institut d'astrophysique spatiale. 2009, Université Paris-Sud. hceres-02032674

HAL Id: hceres-02032674

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Submitted on 20 Feb 2019

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agence d'évaluation de la recherche
et de l'enseignement supérieur

Section des Unités de recherche

Evaluation report

Research unit :

Institut d'Astrophysique Spatiale (IAS) - UMR 8617

University Paris 11



February 2009



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Evaluation report

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University of Paris 11



Le Président
de l'AERES

Jean-François Dhainaut

Section des unités
de recherche

Le Directeur

Pierre Glorieux

february 2009



Evaluation report)

The research unit :

Name of the research unit : Institut d'Astrophysique Spatiale (IAS)

Requested label : UMR

N° in case of renewal : 8617

Head of the research unit : Mr Alain ABERGEL

University or school :

University Paris 11

Other institutions and research organization:

CNRS

Date(s) of the visit :

December 1st and 2nd of 2008

Members of the visiting committee



Chairman of the committee :

Mr Olivier LE FEVRE, Laboratoire d'Astrophysique de Marseille, Observatoire Astronomique Marseille-Provence

Other committee members :

Mr Claude Aoustin, Centre d'Etude Spatiale des Rayonnements, Toulouse

Mr Jean-Louis BERTAUX, Service d'Aéronomie, Verrières le Buisson

Mrs Catherine CESARSKY, Service d'Astrophysique, CEA, Saclay

Mr Jean-Louis COUNIL, Centre National d'Etudes Spatiales, Toulouse

Mr Dario MACCAGNI, Istituto di Astrofisica Spaziale e Fisica Cosmica, INAF National Institute for Astrophysics, Milano, Italy

Mr Joseph A. NUTH, Solar System Exploration Division, Goddard Space Flight Center, Maryland, USA

Mr Rashid SUNYAEV, Max Planck Institute für Astrophysik, Garching, Germany

CNU, CoNRS, CSS INSERM, (représentant INRA, INRIA, IRD...) representatives :

CoNRS : Mr Jean-Gabriel CUBY, Laboratoire d'Astrophysique de Marseille

CNAP : Mrs Nadège MEUNIER, Laboratoire d'Astrophysique de l'Observatoire de Grenoble, Observatoire de Grenoble

CNU : Mrs Roser PELLO, Laboratoire d'Astrophysique de Toulouse et Tarbes, Observatoire Midi-Pyrénées

Observers

AERES scientific representative:

Mrs Edith FALGARONE

University or school representative:

Mr Alexandre REVCOLEVSCHI, Vice-Doyen chargé de la recherche à la Faculté des sciences d'Orsay

Mr Bertrand DELOCHE, Vice-Président recherche du Département de Physique

Research organization representative (s) :

Mr Alain CASTETS, CNRS-INSU

Mr Jean-Marie HAMEURY, CNRS-INSU (partly)

1 • Short presentation of the research unit

- Permanent research staff : 42
 - University (enseignants-chercheurs) : 16
 - Organismes : CNRS 20, CNAP 6
 - Professeurs, Astronomes et Directeur de Recherche : 17
 - Maîtres de Conférences, Astronomes adjoints et Chargés de Recherche : 25
 - Titulaires de l'HDR : 22 including 19 as PhD directors
 - Titulaires de la PEDR : 8
- Non permanent research staff :
 - PhD students on 1/12/08 : 26
 - Post-docs + ATER : 16
- Permanent technical and administrative staff : 60
 - ITA CNRS : 58
 - IATOS : 2
- Non Permanent technical and administrative staff : 17
- Number of PhDs defended in 4 years : 24
- Number of permanent researchers publishing : 40/42
- Number of papers in refereed (Rang A) journals 2004-2008 : 471
- Number of invited reviews 2004 - 2008 : 86
- Number of books 2004 - 2008 : 22

2 • Preparation and execution of the visit

The program for the visit was established by the President and the AERES representative, with inputs from the management of the IAS concerning scheduling of presentations and visits.

The visit started with general presentations in front of the committee and the whole IAS staff. The IAS director gave a complete overview of the institute. It was followed by a presentation of the main scientific achievements and science prospects for the next years, presented by the upcoming director (January 2009). The involvement of the IAS in technical projects was then presented by the technical director. The committee met with the IAS director's team, including the director and the deputy directors, to discuss the goal of the evaluation and hear from the director his feelings on the IAS main strengths and weaknesses. Each of the science team leaders then presented the work and organisation of his team, the scientific results and future prospects; these presentations were opened to the whole IAS staff. The committee then separated into 3 groups, to meet the staff scientists of the 3 science teams. A closed session of the committee concluded day 1. On the morning of day 2, the committee visited the calibration station and the IDOC (IAS Data and Operation Center), as well as some of the laboratory experiments. This was followed by a series of meetings: a meeting with the IAS council members, a meeting with the representatives of the technical and administrative staff, and a meeting with the PhD students and post-doctoral fellows. On the afternoon of day 2, the committee met with the IAS funding authorities. Finally, the committee met in closed session at the end of day 2 to establish its conclusions and recommendations, which were presented orally to the whole staff by the committee President.



The general organisation of the 2 days and the documents submitted ahead of the meeting demonstrated the high level of preparation of the institute. The high level of attendance of the staff at the various meetings enabled the committee to interact with most of the staff, demonstrated their genuine interest in the well-being of the Institute as more than just a place to work, and ensured an open atmosphere where any and all of their concerns could be discussed.

3 • Overall appreciation of the activity of the research unit, of its links with local, national and international partners

In advance of the meeting, the committee was provided with two comprehensive reports, one presenting the scientific achievements of the past four years, the other presenting the scientific goals for the next four years. In addition a quadrennial report including science and technical achievements, budget and personnel, was also made available.

The general presentations of the institute staff further demonstrated the considerable achievements of the past four years. The scientific results obtained in all science areas of the institute, the number of refereed papers and their citation rate, place the IAS among the very best institutes in Europe with strong international recognition. The IAS is one of the few laboratories in Europe to master the complete chain of knowledge including the definition of key science questions, the R&D necessary to develop new space technologies, the design and manufacturing of space instruments and their testing and calibration, data acquisition and archiving, and the final scientific analysis. The IAS is one of the few institutes in Europe capable of managing a large technical space project, as demonstrated by the IAS leadership in the Planck HFI development. The highly skilled technical staff and the technical facilities, in particular the calibration station, constitute an important asset for a continued major participation to the science exploitation of large space missions. This synergy between the strong technical expertise of the IAS in space projects and their scientific leadership in many of them has produced remarkable scientific results. The strategy of the IAS for the next years is clearly to maintain this strong coupling between space technology and science; the committee fully supports this strategy.

The IAS is firmly established within the Paris 11 University and contributes visible and high level physics and astrophysics teaching courses. The 3E project (Enseignement, Exoplanètes, Exobiologie) is a key component of the IAS, and should be completed in the shortest possible time. The SESAME project (calibration station) is an important improvement of the calibration station and should also be completed in the shortest possible timescale. IAS is part of the P2I (Physique des deux infinis) network in Ile de France. The IAS has a good success rate in getting funding from the ANR or national CNRS programs, although the number of programs with IAS leadership remains relatively small. The core of the many IAS international collaborations is through the exploitation of the data from space missions, with an excellent network of collaborations in place. The IAS is therefore well installed in the local, national and international environments.

The evolution of the Orsay Université Paris 11 campus, with a possible move to the Saclay plateau needs to be carefully considered and planned by the IAS in consultation with its institutional partners, as well as with its natural scientific and technical partners, in particular the Sap-CEA. The committee notes that the completion of the 3E and SESAME projects should not be linked to the discussions on a possible move, as the timescales are clearly different.

The committee therefore unanimously agreed that the IAS is undoubtedly one of the major Astrophysics institutes in France, an internationally renowned centre of excellence for space astrophysics.



4 • Specific appreciation team by team and/or project by project

There are three scientific teams in the IAS and one transverse team grouping scientists from two of the teams around the common interest of astrochemistry.

Interstellar Matter and Cosmology (MIC)

The activities of the MIC team address topics from the structure of the Universe on very large scales all the way to the physics and chemistry of galaxies, stars and planetary systems formation. The team includes 18 permanent staff members with 18 PhD students and postdocs. They share a renowned expertise in the analysis of space observations from the near infrared to centimetre wavelengths, and cover a broad range from observations to theory, with R&D including challenging bolometer development. They lead two ANR programs and participate in two others, and a team member is leading the GIS P2I. The main results bring new insights on the PAH (Polycyclic aromatic hydrocarbons) emissions from dust, the 3D distribution of interstellar matter in our Galaxy, the high luminosity of H2 galaxies, and the identification of the population of galaxies responsible for most of the star formation in the Universe. The team is strongly involved in the preparation of the Planck mission, with a major leading role as PI of the HFI instrument and co-PI of several Planck programs, as well as on the Herschel mission, building on the expertise developed by the team on the CMB (Cosmic Microwave Background) and on the IR background to fully exploit the data. The team is preparing for next generation missions like the ESA dark energy mission Euclid studied in the frame of Cosmic-Vision. The committee fully supports the goal of a coherent approach exploiting the broad range of expertise and disciplines addressed by the MIC team.

The committee thinks that the team is well organised to fulfil its commitments to the Planck mission as a primary goal, and to the Herschel mission in connection with Planck. The committee wishes the team best of luck with the launch and is looking forward to hearing about the results. A challenge will be to harvest as much science as possible with IAS leadership, as a fair return on many years of investment. The committee recommends that a coordinated plan be developed, listing the post-doctoral position profiles needed to fully exploit the Planck mission, and systematically targeting all of the main sources of postdoc financing at the local, national, or European levels. The MIC team will have the challenge to support the main in-flight calibration and cross-calibration of the Planck HFI data. They are the only team able to perform this task which is a highly visible and exposed process that will be closely watched by the full community of astrophysicists and particle physicists who will be depending upon these data.

Note de l'équipe	Qualité scientifique et production	Rayonnement et attractivité, intégration dans l'environnement	Stratégie, gouvernance et vie du laboratoire	Appréciation du projet
A+	A+	A+	A+	A+



Solar system and planetary systems Physics

The team includes 13 permanent staff members with 5 PhD students and 3 postdocs.

Solar System

The imaging-spectroscopy OMEGA experiment on-board Mars Express (MEX) is the result of a heavy and long investment of IAS which has brought remarkable results with a strong international impact. The absence of carbonates, the discovery of phyllo silicates and sulfates gives new insight on the past history of Mars, with the role of liquid water a lot less important than was previously supposed, and identifying new sites with exobiology interest. The scientific analysis work load is provided by involvement on MEX and CRISM/MRO around Mars, and Rosetta en route to the comet 67P/C-G with the scientific responsibility for the Philae lander, cameras and microscopes, and the COSIMA experiment for the analysis of grains on the orbiter. In the future, the strategy for hardware involvement is well defined. Priority is given to analysis experiments (in situ like for Exo-Mars, or sample returns), and participation in teledetection experiments (Bepi-Colombo around Mercury). One of the team members taking the director's duty, will leave a missing expertise in the team which will need to be compensated by the recruiting of excellent researchers.

Extra-solar planets

The involvement in the analysis of the COROT results (planetary transits) gives the team a direct access to measurements in this rapidly evolving field. The committee recognises the large R&D effort invested in nulling interferometry techniques with the setup of highly performing optical benches, at the basis of the Darwin project aiming to characterise telluric planets in the IR (6-20 microns). It is however now recognised that this concept was not sufficiently mature to lead to a space mission in the context of the ESA Cosmic-Vision 2008. The committee recommends that the team continues its R&D investments but notes that R&D in nulling interferometry is very complex and requires significantly more resources than standard R&D activities. In this respect, such R&D should be implemented in strong linkage with the national coordination (now emerging following CNES) and at the European level, following the announced ESA plan to continue studies on several instrumental concepts.

Note de l'équipe	Qualité scientifique et production	Rayonnement et attractivité, intégration dans l'environnement	Stratégie, gouvernance et vie du laboratoire	Appréciation du projet
A+	A+	A+	A+	A+

Solar and Stellar Physics

The team includes 14 permanent staff members with 7 PhD students and 4 postdocs.

The team addresses two main topics, Solar and stellar seismology and the external layers of the Sun and coronal heating. The main results are on the physics of the Sun, helioseismology and Solar gravity modes, derived from the exceptional database of solar observations from SOHO as well as the data from the STEREO mission, and the astro seismology analysis of stellar data coming from COROT. The MEDOC center is playing a central role in the operations and data analysis of SOHO. Future projects are focused on Lyot and Solar Orbiter.

The team is very active and well recognised at the international level. The evolution of the team will be linked to the status of space missions now under study, with the need to recruit new permanent research staff becoming even more acute if a mission with major participation by the team is selected. This group has been adversely affected by several recent retirements that have impacted their ability to develop and propose new instrumentation and to successfully advocate for new space flight missions. The committee encourages the team to find ways to attract young researchers to increase the number of postdocs, presently not at the right level given the responsibilities of the IAS in the current in-flight missions. The status of MEDOC in IDOC deserves to be better defined (see section 5).



Note de l'équipe	Qualité scientifique et production	Rayonnement et attractivité, intégration dans l'environnement	Stratégie, gouvernance et vie du laboratoire	Appréciation du projet
A	A	A	A	B

Astrochemistry and origins

This team is bringing together scientists from the MIC and Solar System and Planetary Systems teams, to study the physics and chemistry of solid matter observed in a variety of astrophysical environments. Simulations are performed using lab experiments, at the best international level. Experimental studies of the processes occurring in ices where large aromatic molecules are exposed to intense UV flux and circularly polarized radiation could create an excess of L- or R- enantiomers in materials that could be the basis for chiral “handedness” observed in all life on Earth. Laboratory measurements of synthesis on grain surfaces could help to explain the wealth of organic materials present at the origin of the solar system. Efforts to establish the capability for micron-scale in situ analyses of extraterrestrial samples such as meteorites, Interplanetary Dust Particles or returned samples from Mars, the Moon or asteroids are just starting, but should be encouraged. These measurements provide an excellent synergy with ongoing laboratory efforts to understand the processes that shape materials observed in natural environments.

In the brief time that the committee interacted with the Astrochemistry Team we were impressed by the enthusiasm of these young researchers for the very difficult experimental challenges that they were attempting to overcome in order to answer several fundamental questions concerning the nature of solid matter in space. The committee recommends that the IAS take steps to ensure that there is no vacuum in senior leadership for this interdisciplinary and very effective, cross-group effort. An increased involvement of several highly qualified, current staff members in the activities of this research team, or the recruitment of one or more senior laboratory researchers from outside the IAS could be appropriate actions to ensure the involvement and influence of experienced personnel in maintaining the long-term research focus of this team.

5 • Appreciation of resources and of the life of the research unit

The general organisation of the IAS is quite standard among institutes with a strong technical component, and is working well. The three scientific teams maintain a necessary level of flexibility to foster academic excellence, with the Astro Chemistry and Origins team an original and efficient example of a transverse organisation to federate a multi-disciplinary effort. The organisation of the technical human resources, based on a matrix structure combining space projects with expertise in the technical teams has proven its effectiveness in recent IAS projects. The role of the director's team is well perceived, with support from various committees involving a good fraction of the IAS personnel. The laboratory council (CL) is an important forum to debate and make important decisions for the life of the IAS: the committee identified that the balance between the frequency of CL meetings, currently high with 8-10 times per year, and the effective content in decision making at each CL meeting, needs to be optimised, e.g. through preparation of the agenda between the committee of the Council (if there is one, or the elected people otherwise) and the Director listing the points for discussion and input. The committee notes the importance of completing the 3E project without delay. Teaching and research activities indeed require the creation of an auditorium and an increase in office, lab and meeting room space.

The IAS will change its director as of January 2009. The committee extends its warm congratulations to the director and his deputy directors for their efficient management of the IAS in a very active transition period. The committee expresses its confidence in the new management for implementing his project plan as presented to the committee.



The committee notes with satisfaction that both the CNRS and the Paris 11 University representatives have pledged a continued high level of support to the IAS.

— Budget :

The level of funding from CNRS and Université Paris 11 is judged by the committee to be sufficient to support the current activities at the IAS. However, the committee supports an increase in the level of funding for the IAS to initiate innovative projects and to support emerging new ideas, with these new funds to be managed by the Director with the advice of the CL. The CNES contributes a major part of the IAS budget, with a major fraction redirected to industry contracts for space hardware manufacturing. In a context where the basic financial support from CNRS is decreasing it is necessary to increasing financial contributions from other financial resources to ensure the basic running costs of the IAS. A solution increasingly adopted by institutes is to impose overheads on all incoming financial resources. The rationale and amount of overheads shall be defined in consultation with other institutes, involving CNRS, CNES, the Universities and the ANR at the national level so that a coherent scheme can emerge.

— Human resources :

The number of researchers has remained roughly stable over the past ten years, following a rapid increase in the early 90s. The age distribution of researchers shows a peak in retirements in the next several years. The committee sees the replacement of these highly skilled personnel as a high priority, and recommends developing a coordinated plan with a list of profiles and priorities. All teams have expressed the need to recruit instrumentalists; this should be placed in high priority. The increase in the number of postdocs is remarkable as they have almost tripled since 2002, a trend linked to changes in postdocs funding schemes at the national level. The committee recommends increasing the level of support from the IAS to newcomers, particularly foreigners, for their installation at the IAS, placing them as much as possible in offices connected to permanent staff, as well as providing help for their relocation in France. The completion of the 3E project will probably facilitate this proximity.

The expected slight decrease in the number of technical personnel may soon become a problem. The committee recommends maintaining a recruiting plan to be presented yearly to the agencies and University, focussing on preserving and transmitting the unique technical skills of departing personnel.

— Teaching :

The committee congratulates the IAS for the excellent level of teaching activities at the Paris 11 University, involving both scientific and technical staff, and for the follow-up of the PhD students formed at IAS. The committee recommends that the IAS continue following the career of their Ph.D.s and that this database be used as the basis of a support network which could act e.g. as a basis to place new Ph.D.s into good first post doc positions in the future.

— Calibration station and IDOC :

The calibration station is a powerful tool for the IAS as well as at a national level for other institutes or industry. The committee congratulates the IAS for the operation of this facility and recommends a continued level of support to maintain the high efficiency in number of tests and performances of the station.

The IDOC groups all the operations and data produced by IAS experiments, a very useful centre of expertise. The status of MEDOC within IDOC seems in needs of clarification. After hearing the comments from the scientific groups, the committee recommends that the mandate and the organisation of IDOC be clarified by the IAS director, and that the mechanism to prioritise and allocate resources to incoming projects be improved. The creation of a “Scientific Board” or a “Steering Committee” could help in this task.



— Communication :

The committee notes that some recent results did not get advertised at the right level, and therefore encourages the IAS to better communicate the major results obtained, further developing its public relations plan. The committee also acknowledges the need to maintain a high level of communication internal to the IAS, maintaining in turn a high level of involvement and awareness of the staff in the main decisions taken and their rationale.

6 • Recommendations and advice

— Strong points :

Scientific and technical leadership in several international space missions. Scientific and technical activities at the best international level, which translates in excellent publication rate and instrumentation contribution to space missions. Many visible international collaborations; institute well integrated in national and European scene. Efficient scientific and technical organisation of the institute. Front end space instrumentation development. Excellent teaching curriculum at the University.

— Weak points :

Low level of funding available at the institute to start new projects. The level of communication between scientific and technical staff could be improved. The support to foreigners coming at the institute needs to be improved. Mandate and organisation of data center to be clarified. Communication towards the general public can be improved.

— Recommendations :

The committee unanimously congratulates the IAS for the quality of the scientific and technical activities. The IAS is globally working very well, and therefore the recommendations of the committee are only small improvements upon a stable situation. Besides a complete list of recommendations in the main text above, the main recommendations are listed below.

The committee,

- Recommends that the program as defined in the quadrennial plan as submitted be accepted in principle,
- Recommends the timely completion of the 3E and SESAME projects, independently of discussions on a possible move to the Saclay plateau,
- Recommends that the MIC team develops a coordinated plan to hire post-docs needed to fully exploit the Planck mission, and recommends that the MIC team puts as its highest priority a successful in-flight calibration and cross-calibration of the Planck HFI data,
- Recommends continuing the strategy defined by the solar system team for the participation of IAS in solar system exploration, and to attract new talent to reinforce the team,
- Recommends continuing the R&D investments in interferometry techniques as a support to future missions to characterise telluric planets, in strong linkage with national and European collaborators,
- Recommends that the solar and stellar physics group formulate a hiring plan in conjunction with the Director and Council that will ensure that they both continue their vital roles in ongoing mission data analyses and archiving, while preparing to lead the next generation of solar and stellar physics mission activities,
- Recommends that the IAS take steps to ensure that there is no gap in senior leadership for the Astrochemistry interdisciplinary and very effective, cross-group effort,



- Recommends increasing the level of funding for the Director with the CL to be able to initiate innovative projects and emerging new ideas,
- Recommends setting up a recruiting plan for researchers and for technical staff, spread over several years, to maintain the know-how and technical skills of the institute,
- Recommends increasing the level of administrative and legal support of the IAS to incoming new staff members, in particular foreign postdocs and PhD students, who might be unfamiliar with French customs, regulations and laws,
- Recommends that the mandate and the organisation of IDOC be clarified by the IAS director, aiming to put in place an improved mechanism to prioritise and allocate resources,
- Recommends developing a public relations strategy to advertise the major scientific results of the IAS.

Note de l'unité	Qualité scientifique et production	Rayonnement et attractivité, intégration dans l'environnement	Stratégie, gouvernance et vie du laboratoire	Appréciation du projet
A+	A+	A+	A+	A

Le Président de l'Université Paris-Sud 11

à

Monsieur Pierre GLORIEUX
Directeur de la section des unités de recherche
AERES
20, rue Vivienne
75002 Paris

Orsay, le 11 mars 2009.

N/Réf. : 55/09/GCo/LM/LS

Objet : Rapport d'évaluation d'unité de recherche
N° S2100012370

Monsieur le Directeur,

Vous m'avez transmis le 23 février dernier, le rapport d'évaluation de l'unité de recherche « Institut d'Astrophysique Spatiale » - IAS – UMR 8617, et je vous en remercie.


L'université se réjouit de l'appréciation portée par le Comité sur cette unité et prend bonne note de ses suggestions.

Les points à améliorer seront discutés avec le directeur d'unité dans un esprit constructif pour l'avenir de la recherche à l'université.

Veuillez trouver ci-joint un message du directeur d'unité précisant des données factuelles et ajoutant quelques commentaires.

Je vous prie d'agréer, Monsieur le Directeur, l'expression de ma sincère considération.

Guy COURRAZE
Président



PJ : Commentaires de Mr ABERGEL

Mr Alain CASTETS, CNRS-INSU

Mr Jean-Marie HAMEURY, CNRS-INSU (partly)

La direction de l'IAS (Alain Abergel jusqu'au 31 décembre et moi-même depuis) suggérons deux modifications pour le rapport.

En ce qui concerne le paragraphe sur le budget, il nous semble indispensable de souligner la différence entre la situation 2006-2007, avec effectivement une couverture raisonnable des "basic costs", de celle de 2008-2009, où la direction a été obligée de prévoir des prélèvements substantiels pour les couvrir. En réorganisant les phrases tout en minimisant les modifications, cela donne :

"The CNES contributes a major part of the IAS budget, with a major fraction redirected to industry contracts for space hardware manufacturing. The level of funding from CNRS and Université Paris 11 in 2006-2007 is judged by the committee to be sufficient to support the current activities at the IAS. The basic financial support from CNRS has decreased in 2008-2009 by ~ 25% in real terms. It has therefore been necessary to implement financial contributions from other resources to cover the basic running costs of the IAS. A solution increasingly adopted by institutes is to impose overheads on all incoming financial resources. The rationale and amount of overheads shall be defined in consultation with other institutes, involving CNRS, CNES, the Universities and the ANR at the national level so that a coherent scheme can emerge. The committee supports an increase in the level of funding for the IAS to initiate innovative projects and to support emerging new ideas, with these new funds to be managed by the Director with the advice of the CL."

L'autre correction proposée concerne les personnels. Les ITA du laboratoire seraient déstabilisés par l'adjectif "slight" utilisé dans le rapport pour qualifier la baisse des personnels permanents (3 en 2008 et 4 en 2009, ça fait 5 à 7% par an, ce qui n'est pas un "slight decrease"). Sans changer l'esprit du paragraphe, il nous semble donc extrêmement souhaitable de remplacer "the expected slight decrease" par "the expected decrease".

Au niveau des autres remarques, nous avons convergé sur les points suivants :

La direction du laboratoire prend bonne note de l'encouragement du comité pour continuer de proposer un plan de recrutement à nos tutelles qui permettent de préserver les capacités techniques du laboratoire. Néanmoins, nous ne pouvons que constater, comme l'ensemble des laboratoires de la discipline, que depuis 2008 le nombre de possibilités d'ouverture de concours est très inférieur au nombre de départs, avec un impact majeur sur les capacités d'engagement du laboratoire dans de nouveaux projets.

La direction du laboratoire considère très positivement les recommandations spécifiques, qui vont tout à fait dans le sens des politiques menées jusqu'à présent et de la prospective définie pour l'IAS.

En particulier, l'IAS se félicite des informations très récentes qui montrent que la 2^{ème} recommandation spécifique inscrite dans le rapport AERES est en très bonne voie : l'INSU vient d'apporter son soutien à SESAME pour 150 k€ et le département de l'Essonne a donné hier après-midi son accord de principe pour la maîtrise d'oeuvre 3E (ils viennent nous voir le 12 mars). Une demande de l'IAS concernant l'accompagnement de cette opération pour l'enseignement et la recherche vient d'être transmise par la composante « Faculté des Sciences » à la présidence de l'Université pour le quadriennal 2010-2013.

Yves Langevin et Alain Abergel