

Report of the P2IO International Scientific Council to P2IO Management following the 12/5-6/2019 Meeting

Members of the ISC attending in person: Muhsin Harakeh, Roger Lecomte, Alfred Mueller, Joseph Nuth and Lucia-Ana Popescu. Attending remotely: Ariella Cattai and Belen Gavela.

The Council apologizes that not more members of the Committee were able to attend this meeting. We suggest that future meetings be scheduled much further in advance. Unfortunately, the members of the ISC now understand that the imminent changes to the structure of the University of Paris-Saclay that will occur early in 2020 forced the timing of this meeting in spite of the schedule conflicts of the Council members.

The ISC would like to thank Drs. Sylvie Leray and François Couchot for their hospitality, thorough disclosure and open discussion of all aspects of P2IO. We would also like to thank them for providing an excellent dinner and for their skills as reliable and safe drivers. We would like to thank Catherine Desailly-Guyard for the excellent logistical arrangements – despite the nationwide strike throughout France. Finally, we extend our thanks to each of the speakers for bringing valuable details concerning the results of the Emblematic Projects, the proposed activities of the two new Flagship Projects and the schedule and scope of the establishment of the University Paris-Saclay to the ISC's attention.

We would like to congratulate both researchers and management on the excellent work that P2IO has performed over the last nine years as recognized in detail in the glowing report of the independent evaluation committee that recommended the continuation of this LabEx for five more years. Members of the ISC were greatly impressed by the reports of the amazing successes of 4 of the 5 Emblematic Projects. These were high-risk/high-reward research efforts and it is a tribute to the talent within P2IO that such a high percentage of the projects succeeded in completing their difficult objectives. With respect to PRAE, we recognize the courage and good judgement of the Directors who terminated the one Emblematic Project that ran into difficulties that would have prevented its completion due to no fault of individuals who remained on the PRAE team. The departure of the two project leaders within a single week was a highly unusual event that presented an insurmountable barrier to such a specialized project.

Flagship Projects

ISC Concur with the selection of BSM-Nu and Gluodynamics as the 2020 P2IO Flagship Projects. Members of the ISC reviewed the final 6 candidate projects: all were excellent. Although each had relatively minor flaws, all had the potential for enormous success in greatly advancing the state-of-the-art in their chosen research areas if the teams succeeded in completion

of their stated goals. The CoDir made a difficult choice, but their rationale for the selections is very well documented and their reasoning is sound. The ISC strongly supports funding these Flagship Projects for the full 5-year effort proposed and at the full budget recommended by the CoDir in their selection statements. The ISC hopes that the other projects will find alternative sources of funding to continue their excellent work.

Project Stability is a Key to Success

Members of the ISC were shocked and very concerned after hearing of the potential for the summary termination of P2IO following its incorporation into the Paris-Saclay IDEX early in 2020. Although the Council was reassured when informed of verbal guarantees by the current president of Paris-Saclay University to support the operations of P2IO through at least 2023, we highly recommend that a Memorandum of Understanding be signed between the university president and the directors of P2IO in order to document these guarantees and prevent any future misunderstandings. This MOU could also serve to document University expectations for the future of P2IO in case the current president or the current directors of P2IO decide to leave. We appreciate the suggestion by Dr. Iacona that such a MOU should be signed quickly (*e.g.*, before the end of 2019). Both Flagship projects require long-term stability in order to succeed in accomplishing their objectives and this MOU will clarify the time available to complete these projects.

Administration of Flagship Projects

Based on lessons learned from PRAE the ISC recommends that each of the Co-PIs for the newly selected Flagship Projects have an official Deputy who is capable of leading that specific project and who will automatically assume the role of Co-PI upon the departure of the current Co-PI.

While members of the ISC applaud the decision to terminate the project when it was clearly in trouble, we hope that some use can be made of the investment in equipment that was purchased or the various studies that were completed prior to its termination. We understand that this might be quite difficult given the current budget, but it is at least worth investigating.

Cooperation between Paris-Saclay University and Institut Polytechnique de Paris

The ISC recommends that efforts continue to ensure the ongoing research collaborations between PSU and IPP independent of the future status of P2IO. Both Paris-Saclay University and Institut Polytechnique de Paris benefit from the synergies afforded by this collaboration. Provision by both institutions for the support of post-doctoral researchers who work across official boundaries will be extremely beneficial in promoting these interactions.