

## Report of Advisory Board of CEMPI *Laboratoire d'Excellence*

CEMPI Scientific Day, 10 February 2017

The Scientific Day, which took place on 10 February 2017, brought together the major academic partners of the CEMPI *Laboratoire d'Excellence* together with representatives of the governing bodies (*tutelles*), the Region, and members of the external scientific Advisory Board. The morning plenary session consisted firstly of an overview of the training, research, and economic transfer achievements of CEMPI during the 2015-2016 period, followed by scientific presentations to highlight particular interdisciplinary success stories. The afternoon session consisted of a meeting between the CEMPI leadership, Advisory Board and "Tutelle" representatives to discuss the future evolution of CEMPI, and to consider suggestions to ensure long-term continuation of the CEMPI collaborations beyond the completion date in 2019.

The following comments from the members of the Advisory Board reflect a broad consensus on the quality and evolution of CEMPI, as well as some particular suggestions for future actions.

- The Advisory Board first congratulates CEMPI for its impressive achievements and success during the last two years. A number of important scientific results have been obtained leading to publications in major journals, members of CEMPI have received honours such as the CNRS Bronze medal and nomination at the Institut Universitaire de France, and award of an ERC grant. In addition, solid collaborations have arisen with CEMPI on genuinely interdisciplinary topics.
- Advancements in science are increasingly being made at the interface between conventional disciplines, such as biology, mathematics and physics. CEMPI has demonstrated that it successfully fosters inter-disciplinary research, leading to high-impact publications. In the coming years, inter-disciplinary research is expected to become even more important, and CEMPI is uniquely positioned to play a central role in stimulating this type of research further.
- Fuelled by these developments in science, institutes and universities across the globe are now setting up new interdisciplinary programs at the bachelor's and master's level, which are rapidly becoming very popular among students. For example, the nanobiology program set up jointly by the TU Delft and the Erasmus University of Rotterdam only a few years ago, already has a *numerus fixus*. The master's program of the CEMPI resonates positively with these international developments, attracting excellent students who want to operate at the frontiers of science. Moreover, with the upcoming merger of the three public Lille universities, new opportunities arise for setting up new multi-disciplinary programs, and CEMPI could play a vital role in these developments, for example by providing courses at the interface of biology and physics/mathematics.

- The members of CEMPI highlighted that many key scientific results obtained during 2015-2016 simply would not have been obtained without the resources and support of CEMPI. Both the interdisciplinary structure and the financial resources were seen as crucial to develop new initiatives. The Advisory Board commends the leadership of CEMPI for working proactively to explore ways of ensuring the long term continuation of the CEMPI collaborations.
- The presentations that the Board heard during the Scientific Day were of very high quality, and it was very encouraging to see excellent attendance from the members of CEMPI, both staff and students. To improve even more the synergy of the Labex, we suggest the organization of a monthly colloquium that would attract a wide audience from the various CEMPI components.
- The graduate school is functioning very well, and indeed beyond initial expectations. It was a judicious choice to use CEMPI funds to attract good master students, and we recommend to look for perspectives to be able to continue this. The use of summer schools to extend and intensify the education of the master and Ph.D. students also appears to be a good idea.

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