

# Minutes of the HYCON Joint Executive Committee and Governing Board meeting Seville, December 15

## 1 Representation of the nodes and approval of the agenda

F. Lamnabhi-Lagarrigue	CNRS, ExecCom Chair
S. Laghrouche	CNRS
J. Maciejowski	Univ. Cambridge
C. de Prada	Univ. Valladolid
R. Sepulchre	Univ. Liege
K.-H. Johansson	KTH
A. Rantzer	LTH
J. Raisch	Univ. Magdebourg
S. Engell	Univ. Dortmund, Governing Board Chair
O. Stursberg	Univ. Dortmund
B. De Schutter	TU Delft
A. Bemporad	Univ. Siena
J. W. Polderman	Univ. Twente
G. Ferrari Trecate	INRIA
G. Papafotiou	ETHZ
M. Morari	ETHZ
M. Di Benedetto	Univ. L'Aquila
J. de Macedo	FIST
A. Bicchi	Univ. Pisa
A. Balluchi	PARADES
A. Sangiovani-Vincentelli	PARADES

The quorum is met.

The meeting was declared open at 19.45.

The agenda of the meeting as proposed by the Chairpersons was accepted.

## 2. Final version of PPR2 and DoW(M13-M30), see attached

Francoise Lamnabhi-Lagarrigue summarizes the key changes in the DoW for the months 13 to 30. One main concern was the description of work of WP5, where the reviewers asked that the efforts are shifted from the creation of an electronic handbook to the creation of a hardcopy (reference book). Also a reduction of the persons months allocated was asked for. This represents a significant change, which Jan Lunze accepted in the end. In WP4d the reviewers had stressed the need for more focus on case studies. The corresponding part of the DoW has been rewritten according to the review recommendations, and has now been accepted. A small number of PMs were moved from WP5 to WP3, according to the requests of the commission. Overall, the DoW is now in its final status. The members of the Executive Committee did not put forward any demands for future changes. Thus the DoW is now fixed, apart from possible minor changes of the allocation of PMs within the WPs.

Sebastian Engell asks for the exact amount of money the partners have claimed so far. Joseph de Macedo responds that overall the partners have spent the full amount that should have been

spent by this time. He also adds that the commission is in the process of checking the audit certificates and the remaining money should be received by the partners soon. Sebastian Engell asks more specifically how many PMs have been claimed for the first year. It seems that the partners have spent less; the question is how much less? Joseph de Macedo reports that the consortium has spent 1.4 Million Euros, roughly a little less than 30% of the total amount.

Karl Henrik Johansson asks how one calculates the list of eligible costs per partners for the full duration of the project. Sebastian Engell seconds this question, since there seems to be a difference in this version of the table presented in the meeting from the original, and therefore the partners should ask for an explanation. According to Joseph de Macedo and Francoise Lamnabhi-Lagarrigue, this is not an important issue, since the numbers in this table represent an estimation of the future costs. The partners, however, insist that this issue should be clarified. Alberto Sangiovani-Vincentelli especially stresses the need for the partners to understand the logic that produces these estimates, in order to avoid any future problems. He specifically asks if FIST is responsible for producing these tables. The partners conclude that in the next meeting the logic behind the estimates should be presented, discussed and understood, so that we avoid these complications in the future.

### **3. HYCON partnership**

Sebastian Engell reported to the partners that Joerg Raisch will be moving from the University of Magdeburg to TU Berlin together with his whole group. He proposes to move the HYCON node accordingly, effective March 2006. The partners accept the proposal.

The next Executive Committee is scheduled to take place in Lund in June 1 or 2, 2006. The dates are not yet definite; they will be decided in connection with the joint WP4a-WP4c-WP4d meeting that is planned to take place in Lund at that same time. The partners agree that there seems to be no reason to schedule a Governing Board meeting right now.

### **4. Review 2: comments and future actions**

Francoise Lamnabhi-Lagarrigue summarizes the results from the second review. She emphasizes that action must be taken from all the WPs for improving the web site of the Network. Sebastian Engell stresses the fact that the partners should take the suggestions of the review seriously since he feels that the reviewers treated us fairly, made constructive suggestions, and put trust in the consortium. Experience shows that such projects tend to have spikes of activity around the dates of the reviews, with too little happening in between. The partners should not make the mistake to wait until February but should react now to the suggestions. Sebastian Engell also reports that it proved helpful to have a hybrid systems person among the reviewers..

Francoise Lamnabhi-Lagarrigue says that the partners should be careful about the deliverables. Sebastian Engell reports that there is a sentence in the review that all deliverables are accepted, since efforts to change some of them are disproportionate to the gains that will be drawn. This holds for all except for three deliverables that must be resubmitted. Such an example is D5.4.4, although it seems that the only thing needed is to send a copy of the book (Proceedings of the HSCC 2005) to the reviewers. One copy has

already been sent to the commission, ETH needs to check if some additional copies are available.

Sebastian Engell also adds that it is clear that no more delays on the issue of the EIHS are allowed. Moreover, the partners should consider the comments for the WPs. Regarding WP4c, Andrea Balluchi reports to the partners that PARADES has asked for feedback from the industrial participants of the automotive workshop to help to evaluate its success. Sebastian Engell stresses that it should be reported what tools and methods are used in the application case studies and the experiences with these tools should be distributed, there might be a tendency to build new tools for each application. The reviewers asked that it has to be shown that tools from the integration WPs are used and they should be compared in the applications.

Francoise Lamnabhi-Lagarrigue returns to the issue of the website, on which again part of the reviewers' comments were focused. She expresses the intention to change the visibility of the IAB; this will be done soon (in January) in order to make the links to industry clear and visible. She also explains to the partners that when they put a link to a deliverable in the WP website, it is important to use the same link as in the official list of deliverables in the first page in order to avoid duplications.

## **5. Review 3 (light version): date and content**

Francoise Lamnabhi-Lagarrigue discusses the preparation of review 3. The review will only last one day and will concern only WP4d. The exact date is not yet known; it will be defined by Rolf, probably sometime in the second half of March.

## **6. ICO implementation**

Antonio Bicchi explains to the partners the ICO (International Curriculum Option) initiative. This is a joint initiative of 14 universities, most of them members of HYCON. It represents an option for students going through the normal curriculum, provided that they have some extra qualifications like e.g. credits earned from courses or extended visits to other universities. The ICO is minimally invasive, and is not interfering with the specific regulations of each university. The initiative has been highly encouraged by the commission and by a number of European governments. The Italian government has provided funding to support the ICO. The ICO started outside HYCON, but is by now part of the DoW for the period M13-M30. The first students are expected to enroll in the first year, and the participating institutions are going to work out rules for the enrolment of graduate students that are already in the second year (or higher) of their studies. Subsequently, the ICO will open up to new universities that want to join, and the HYCON partners are welcome to do so.

Sebastian Engell asks if the courses of the ICO have been defined. Antonio Bicchi responds that there is a draft document defining the specific courses that will circulate among the participants for their feedback; this document includes summer schools, and the option for the students to spend some time abroad in another participating university. However, the rules have not yet been precisely defined. There are some thoughts to have the students work on a thesis supervised by somebody outside from the network, and defend it in front of one of the members. The details still need to be polished, but the general framework has been set up. Sebastian Engell then asks who sets the regulations of the ICO. Antonio Bicchi replies that

there is a curriculum board, with 2 representatives from each participant university. Sebastian Engell asks if such a structure is too large for constructive work, and Antonio Bicchi replies that the discussions will commence with the exchange of emails; shortly afterwards, the board will have to discuss the details. Antonio Bicchi also stresses the fact that the ICO should be integrated with HYCON and not be confined to an Italian-based initiative. The partners decide that a small committee should start the discussion comprising K.-H. Johansson, A. Bicchi, and C. de Prada.

## **7. WP6 - IAB : next steps**

Francoise Lamnabhi-Lagarrigue introduces the discussion regarding the next steps in WP6. Alberto Sangiovani-Vincentelli presents the planned activities. More specifically, he refers to the agreement to have one individual IAB per each application area of WP4x. A letter will go to all affiliated companies asking for their agreement and to appoint a person to sit in each individual IAB. An additional questionnaire that has been sent helped evaluate the level of affiliation, and a number of companies appear as HYCON premium members. Therefore, the level of interest in industry appears to be strong. Moreover, the list of affiliated companies will grow, since not all companies have responded yet. Some of the companies participate in the activities of more than one work package. These companies will be asked to nominate one person for each of the corresponding IABs.

Alberto Sangiovani-Vincentelli also recommends to try to combine the several workshops that are planned into joint events. For example the WP4c meeting in Lund (to be held on June 1 and 2, 2006) will be extended to cover WP4a and possibly WP4d. In this case the companies can send their representatives, and both local and global IAB meetings can be held at the same place and time. The specific plans will be decided in the near future. The benefit of such an event is the equal IAB participation. The partners agree to have the discussion arranging the details of the Lund meeting by email. Manfred Morari underlines the fact that the planning also depends on the availability of the industrial representatives. Finally, the partners agree to hold the next Executive Committee meeting around the same location and date.

## **8. Choice of the EIHS location, decision on the name of the institute**

Sebastian Engell introduces the discussion for the location of the EIHS. Four applications were standing after the meeting in Sienna and the committee that was set up screened the different proposals, reaching the preliminary decision not to pursue the application from Patras, with the corresponding node leader not objecting. From the three that were left, Paris and L'Aquila seemed to have the most advantages. A short discussion/presentation from the two major applicants follows.

Francoise Lamnabhi-Lagarrigue presents the application of Paris. The main advantage is the existence of a Center of Excellence comprising CNRS, INRIA, Supelec, and other institutions, which is willing to host the EIHS. The region has the support of the competitive cluster SYSTEM@TIC. The EIHS will be part of this consortium, and receive through it the (implicit) support from a number of companies. There are available funds for doctorate, post-doctorate programs, workshops etc. and good transportation connections. The EIHS will be hosted in the new building of the Center of Excellence that will be built next to Supelec.

Maria Di Benedetto refrains from a detailed presentation, since all the relevant data are given in the written application. She underlines the proposal to create a research unit site in L'Aquila, in particular in the area of networked embedded systems. The reasons are found in the existence in L'Aquila of a very strong group in that area, which is also the focus of the CoE located in L'Aquila. There is also support from the local industry, e.g. from the communication sector (Thales), as well as from the integrated circuits industry. The application is also supported by the local government, which can provide funding to support the research site activities.

Sebastian Engell expresses the opinion of the sub-committee that the application of Paris is beyond competition in terms of the support offered and should be chosen for the central management site. There are good transportation connections and it is close to the coordinator of HYCON. L'Aquila is also a strong candidate in particular in the application domain mentioned, as can be seen from the list of researchers and the experimental infrastructure. Therefore, the proposal is to position the EIHS in Paris, with a lab on networked control systems in L'Aquila. The existence of the relevant experimental infrastructure is important, and it will be valuable for WP4d and for HYCON to concentrate the forces in this area at L'Aquila. The cost of this proposal has not been yet analyzed but is not expected to be a problem. It is also very important that there is availability of funds for the manager of the local site from the local authorities.

Manfred Morari agrees with the proposal and finds it an excellent combination of the strong points of the two candidates. Alberto Bemporad sees it as a good diplomatic solution. Alberto Sangiovani-Vincentelli says that the two nodes need to make sure that they complement and work in synergy, not diffuse the effort. Sebastian Engell stresses the fact that the proposal does not imply to distribute the institute. The EIHS is located in Paris, and a lab of EIHS is created in L'Aquila. The partners accept the proposal.

Sebastian Engell invites a discussion on the creation of an educational site in Pisa. Antonio Bicchi explains that Pisa candidates to coordinate the ICO; this means undertaking organizational tasks and keeping the activity alive. Antonio Bicchi proposes to do this in the framework of HYCON. No specific other educational activities are foreseen in Pisa, since it represents only one node of the ICO, not the only part. Sebastian Engell states that the discussion boils down to getting financial support of HYCON to support the ICO. He says that it is in the interest of HYCON to do so, and sees no reason why HYCON should not continue to support the initiative. What remains to be resolved is the labeling, since this is not another branch of the EIHS, but an additional activity. Antonio Bicchi adds that a certain level of formal recognition can help the negotiations with the university in Pisa.

The partners do not object to the support of the activity.

Sebastian Engell brings up the next issue which is the name of the institute.

He reports to the partners that there so far has been no convincing proposal to replace EIHS, and asks for any other opinions. European Institute of Embedded Control (EIEC) is brought up by Antonio Bicchi as one idea. Bart De Schutter reminds that there is an overlap with the Dutch Institute for Embedded Systems. Alberto Sangiovani-Vincentelli adds that the use of the term embedded will help highlight the importance of control. Antonio Bicchi proposes to keep the term dynamical systems in the title, since the partners might want to avoid the use of a buzzword that might go out of fashion.

Sebastian Engell proposes the name European Embedded Control Institute EECI, which can be pronounced easier. The name will be proposed to the reviewers to see their reaction.

Manfred Morari brings to attention the fact that the resumes of the people mentioned in the application of Paris show that they have little experience and involvement with hybrid systems up to now. Therefore, the claim of a connection to embedded control is somewhat stretched. The partners need to make sure they can fill this with the appropriate people to back the term embedded.

Sebastian Engell says that the reviewers are worried about the speed of the creation of the institute, and therefore the next steps (legal framework, hiring of manager) need to be done soon, before the Governing Board meets again. He proposed to set up a committee of 2-5 people to look at the manager applications and to decide. The partners agree that it is essential that the manager has a hybrid systems background. A strong link of the manager with the hybrid systems field is needed if the institute is to stay alive after HYCON ends. The partners also agree that interviews with the top candidates are absolutely necessary. Françoise Lamnabhi-Lagarrigue wants to participate in the selection, and together with Alberto Bemporad, as a representative of WP1, they augment the existing committee comprising S. Engell, E. F. Camacho and J. Maciejowski.

## **9. Re-planning of the WP leadership and ExCom.**

Antonio Bicchi stresses the need for a plan that counteracts the tendency that the network and the institute die after the funding of HYCON ends. Since some partners have shown a more active participation than others he proposes the following: if there is someone who wants to be a candidate for a more active role, the network should allow the rotation of responsibility in order to achieve a more dynamic participation by more partners. Especially after deciding to change the name of the institute, the partners need to have those strong groups that are not part of the network brought closer to HYCON and the institute. He adds that this does not have to be decided tonight or in the short term, but possibly the consortium could consider a reshuffling of the activities and responsibilities around M30 or M36.

Sebastian Engell replies that these are two different issues. In the framework of HYCON there is the option for people to take new responsibilities. This should be formally announced to all partners, possibly around June, so that the result can be taken into account when the next version of the DoW is drafted. He does not expect that this will completely change the situation, but it might give the opportunity to some partners to participate more actively. On the other hand, he expresses his disagreement with the second issue. In his opinion, the network right now has the proper size, and not many strong groups have been left out. The addition of much more nodes would render the network unmanageable by the current structure. The money that each partner will get will also be further reduced, and thus the incentive for active participation. Antonio Bicchi answers that the new node additions he is thinking of will not be involved in the resources allocation; new nodes can be added under the light association regime, just to demonstrate the fact that they are not excluded.

Sebastian Engell proposes to review the second issue during the meeting in connection with the HYCON conference to be held in September in Zurich. The network could also invite other groups to this event, and revitalize the light associations. The existing nodes can in the meantime propose candidates for light associations; proposals should be asked for by June.

Joseph de Macedo brings up the idea of establishing a sort of a written agreement with the light-associated partners, something like a NDA.

The meeting is closed at 22.00 hrs.