

FP6 IP HYDROMEL 24 Review Technical Meeting in Sofia – Boyana (BG)

22 -23 October, 2008



Sofia – Boyana residence, October 2008
24 Hydromel Technical Meeting & Review
General Assembly

The 24 Months Technical meeting of FP6 Integrated European project Hydromel (<http://www.hydromel-project.eu/>) was held last October in Sofia (Bulgaria). The meeting was hosted by the Bulgarian Academy of Science – Institute of Mechanics represented by Prof. Kostandin Kostandinov and his staff.

The two – days event has been organised in a prestigious location in the neighbourhood of Sofia named Boyana Residence. Formerly the official site of the Bulgarian Communist Party, today Boyana is used as official residence of the President of Bulgaria and hosts in its park the National Historical Museum of Science. International meetings and official governmental ceremonies are held in its premises that hosted in the past eminent politicians from all over the world.

Hydromel project have been submitted to its mid - term review in front of 50 participants (all partners represented) and as well as the representative of the European Commission Dr. Hans Brelen (Principal Scientific Officer Unit G2, Product, Processes and Organisation, DG Research). Dr. Marcel Dierselhuis (appointed Project Technical Reviewer) was also present.

In the first day of the meeting CSEM as coordinator opened the discussion illustrating the main achievements of the second year and reminding project structures, objectives, deliverables and milestones. The project coordinator Dr. Alexander Steinicker reminded also the importance of interaction between the more than 20 project partners; Hydromel creates a technology platform for hybrid assembly. Results will be implemented in integrated

demonstrators in various application areas such as micromechanics, microelectronics, bio/pharma and nanoelectronics. This opens huge possibilities of technology transfer. . CSEM pointed out also how all expected milestones and deliverables had been delivered in time thanks to the good collaborations among the partners.

Agenda followed with sub-project leaders presentations: University of Oldeburg - Germany (leader of robot positioning activities), ETH Zurich – Switzerland (leader of self assembly activities) and Tyndall – Ireland (leader of hybrid technological approaches: robot+ self assembly).

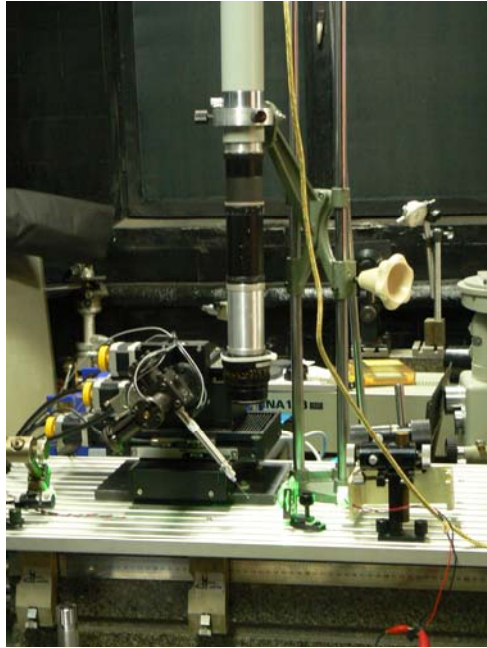
DIAD, as Dissemination and Communication manager, illustrated the opportunities of collaboration with running research projects in the FP6 and in the FP7, aiming to improve the exchange of information with the European nano – community and to the creation of new business collaboration. The consortium is open to synergies and collaboration agreement with industrial association, technology platforms and companies interested in the industrialisation of Hydromel technologies.

A demonstrator session ended the first day of the meeting giving the opportunity to the meeting attendants of talking face to face with scientific advisors, RTD provider and end users. Samples, prototype machines, videos and slides have been shown and made accessible to all the partners.

In particular, the Bulgarian Academy of Science moved from its laboratories the Robot System developed in the project for cell injection. The robot Hydro-MiNa with its regional structure with 4 degree of freedom – 3 translational (50/50/30mm) and one rotational (360 degree) position the robot end-effector in relatively big working space with speed 2.5cm/s and high accuracy defined by resolution of 100nm and repeatability of 1.0 mm. Two microrobots are developed as local structure with 3 degree of freedom – 2 rotational for end-effector precise orientation and one translation in Z-axis for cell penetration with stroke up to 1000 micrometers. They are designed to cover the whole range of manipulation cells – from 10 to 1000 micrometers in size with high resolution of motion 10 nm.



Dr. Alexander Steinecker from CSEM (Project coordinator) and Prof. Kostadin Kostadinov from BAS standing to the Hydro-MiNa Robot for cell injection



Hydro-MiNa Robot for cell injection

During the second day of the meeting it was carried out the review of the project with the Scientific Officers and the definition of the action plan and implementation plan for the next period for each Sub Project.

Next 30 Months Hydromel Technical meeting will be hosted by ALMA in Paris on April, 2nd 2009

See you in Paris!

Hydromel Dissemination and Communication Team