

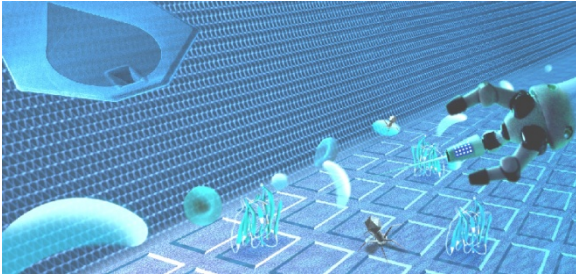
---

## **HYDROMEL ADVISORY BOARD**

### **First newsletter May 2009**

Dr. Maddalena Rostagno, Dr. Irene Natale, DIAD (I)



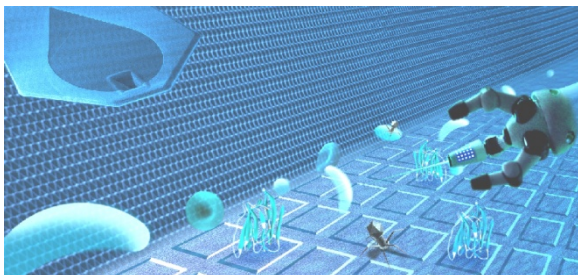


# Contents

---

- 1. White we know about our AB members**
- 2. What our AB members know about us**
- 3. Let's meet together: First AB Meeting Paris, April 3rd**
- 4. Waiting for their feedback...**

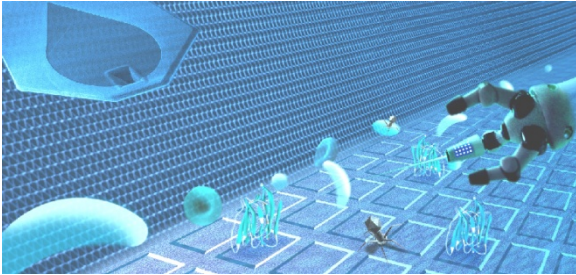




## What we know about our AB members

N°	COMPANY	COUNTRY	CONTACT PERSON	CORE ACTIVITY	HEL PROPYDROMOSER	ADVISE IN DEMO
1	CP Automation	CH	Alain Codourey	Desktop robotic platform	CSEM	1, 5
2	SORIN Biomedica CRM	IT	Davide Giaquinta	Implantable medical devices	HEXACOM	3, 5
3	XAAR	UK	Phil Keenan	R&D Manager with over 20 years exp. in senior roles with IBM and HP.	DIAD	4, 5
4	ST	IT	Luigi Occhipinti	Nanotube/nanodevices for electronic applications. Member of IEEE and CEI-IEC standardization committees	CSEM	2, 5
5	MICROTEC	G	Andrea Reinhardt	Rapid protoyping of micro 3d structures / polymers / embossing. Responsible for MINAM public relation and linked with EUSPEN	DIAD	2, 5





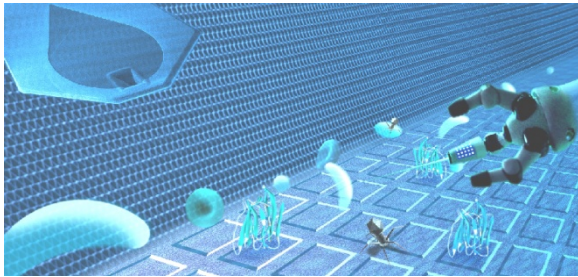
## What we know about our AB members

---

### **Mrs. Andrea Elisabeth Reinhardt (GE) MICROTEC – Chief Executive Officer**

Mrs. Andrea E. Reinhardt is active in the field industrial applications of micro- and nanotechnologies since 12 years at microTEC team. She is educated at University Mannheim and started her career in banking. In 2001 she co-founded NTC [www.ntcgmbh.com](http://www.ntcgmbh.com) and is angel investor of D&D Pharma GmbH. Mrs. Reinhardt has worked within customer- and EC funded R&D projects and contributed to invited articles in areas like customized series production of mems, laser and UV light based production, diversity, innovation and SME as an element of European growth. She is working as reviewer for national and EC funded projects, is member of the board of ZIRP [www.zirp.de](http://www.zirp.de) and MINAM [www.micronanomanufacturing.eu](http://www.micronanomanufacturing.eu).





## What we know about our AB members

---

### Dr. Phil Keenan

#### Summary

MBA Graduate. Chartered Engineer (C.Eng). B.Sc.(Hons) Materials Science (Sheffield).

Experienced manager / technology leader with over twenty-five years experience in taking numerous complex product programmes from the laboratory and scaling-up to volume production and shipment to the customer in the shortest possible time. (microcircuits, hard drives, inkjet printheads, display technologies, photovoltaics).

Broad experience in materials deposition technologies, technology characterization and continuous improvement. A skilled people leader and problem solver who enjoys the challenges of technology and bringing it to successful commercialization.

Author of 18 patents in the fields of inkjet printheads, MEMS device production, displays, and photonic devices.

Providing manufacturing consulting for large area LED lighting, OLED and photovoltaic manufacturing clients.

(Large area MEMS assemblies and interconnects).

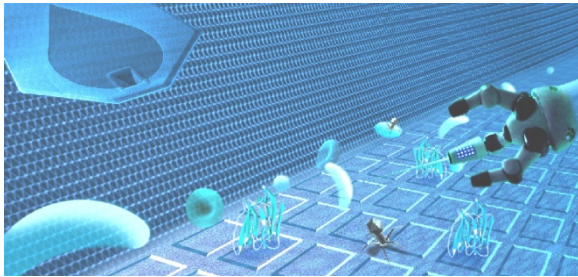
Developed a lifetime optimization model for the photovoltaic and OLED emissive materials used by clients to drive next generation product designs.

#### Positions

- Consulting for UK and Irish start-ups: Organic Photovoltaics / OLED lighting and large area photonic materials deposition.
- Xaar PLC, Cambridge, May 2008 - Oct 2008, R&D Manager – Inkjet Printhead Development
- Cambridge Mechatronics (Formerly 1 Limited - miniature autofocus cameras), Oct 2007 – Apr 2008, R&D Manager
- Strategyn (Customer core product needs research), February 2007 – Sept 2007
- Xennia (Inkjet Deposition Systems for Displays and Photovoltaics), Aug 2006 - Feb 2007, R&D Manager
- Hewlett Packard Corporation Ireland, 1994 – 2006, Leader of a flexible emissive displays development programme as part of HP's worldwide displays development.
- Inkjet Manufacturing 1994 – 2001, Leader of engineering teams in the manufacturing of inkjet printheads.
- IBM Corporation, January 1983 – April 1994, Senior Member of Technical Staff







## What we know about our AB members

---

### **Dr. Luigi Occhipinti (I)** **ST Microelectronics – Italy Branch** **Head of Printed Electronics Technology Platform**

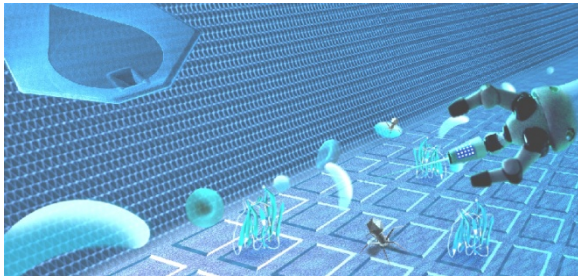
Born in Ragusa (Italy) the 8 Apr. 1968. Received the Electronics Engineering degree from Catania University in 1992, and Ph.D. in Electrical Engineering in 1996 with a dissertation entitled “Neural Networks and Fuzzy Systems: applications in modeling and control of dynamic systems”.

Since Nov. 1995 Luigi Occhipinti is working in STMicroelectronics, Corporate R&D, covering several positions of both project leader and R&D manager. In 2001 he was appointed Scientific Coordinator and Program Manager of the Soft Computing and Nano-Organics R&D group, and Nano-Organics team leader. In 2004 he covered the position of Strategic Alliances and Program Manager of Si-optics and post-Silicon Technologies (SST), Corporate R&D, in charge of all external cooperations, research alliances and projects for Corporate R&D SST. Since 2005, he is appointed Sr. Adv. R&D and Program Manager of Technology R&D - Post Silicon Technologies group, in charge of Printed Electronics Technology Platform, with responsibility of teams located in Italy (Catania, Naples) and Singapore.

His research field interests include emerging technology areas for the post-CMOS roadmap, smart systems heterogeneous integration, polymer and printed electronics, advanced bio-systems, advanced signal processing and nonlinear computation, micro and nano-systems. Luigi Occhipinti is author of about 70 scientific publications in international journals and conference proceedings, inventor and co-inventor of 27 industrial patents filed in Europe, USA and Japan, in the field of automation and control, bio-inspired robotics, cryptosystems, micro- and nano-electronics technologies, organic and molecular devices and circuits. He is member of IEEE and CEI/IEC Standardization groups and Technical Committees active in the field of nanotechnologies (IEC TC 113), organic and molecular electronics (IEEE P1620), environmental assessment (IEC TC 111), and fuel cells (IEC TC 105). Since 1999 he is involved as project leader and deputy coordinator of EC funded research projects.

---





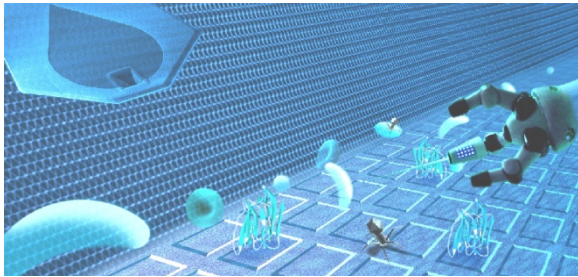
## What we know about our AB members

---

### **Dr. Alain Codourey (CH)** **ASYRIL – Managing Director**

Alain Codourey received a MS degree in microengineering (Mikrotechnik) from the Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland in 1987 and the Ph.D. degree from the same school in 1991. From 1992 to 1993 he was a visiting scientist at Stanford University, California. In 1994 he joined the Institute of Robotics of the ETH (Swiss Federal Institute of Technology Zurich) as technical manager of the nanorobotics project. From 1998 to 2000 he was project manager in the robotics and automation division of Helbling Technik where he carried out robotics projects for companies in Europe, Taiwan and Japan. From 2001 to 2006 he was leader of the microrobotics section at CSEM (Swiss Center for Electronics and Microtechnology) where he was managing research and development in the fields of high precision robots and microassembly. In 2007 he joined CPAutomation as R&D Manager. He was in charge of creating a new micromechanical department that was spawn out in October 2007 to create the company Asyрил SA. Since then he is Managing Director of Asyрил. Since 1996 he is also part time professor at Biel School of Engineering teaching robotics and microrobotics.





## What we know about our AB members

---

### Dr. Davide G. Giaquinta (I)

#### SORIN GROUP - SORIN BIOMEDICA CRM Business Unit

##### PROFESSIONAL DATA – CURRENT POSITION

Davide Giovanni Giaquinta, graduated in mechanical engineering at Politecnico of Turin, is active in the field of implantable medical devices at Sorin Group ([www.sorin.com](http://www.sorin.com)), a global company and a leader in the treatment of cardiovascular diseases.

He has a long experience in development and industrialization of implantable medical devices: since 1998 he has been covering several positions in different B.U. of Sorin Group:

*Vascular Therapy B.U.* (1998-2005) relating to implantable medical devices for *Coronary Artery Diseases*;

*Hearth Valves B.U.* (2006-2008) relating to implantable medical devices for *Hearth Valve Diseases*;

*Cardiac Rhythm Management B.U.* (since 2008) relating to implantable medical devices for *Cardiac Arrhythmias*.

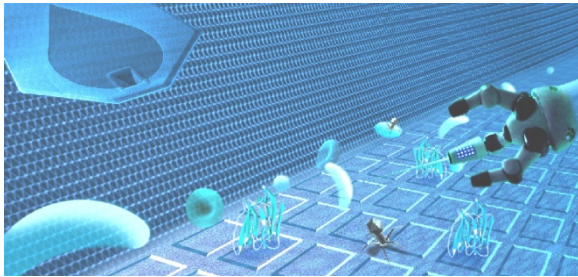
In Vascular Therapy B.U. he was involved, as mechanical designer of R&D dept., in the development of Research Projects funded by Italian government, related to “Theme n° 5 - Systems and devices for interventional cardiology - Lines 1.1 and 1.2”; in 2000 he was appointed responsible for the development and the industrialization of bare stents and drug eluting stents production technologies (laser cutting, pickling, electro-polishing, crimping, drug loading).

In Hearth Valves B.U. he was appointed R&D manager for Operation assistance System focused in technical support for maintenance activity of the product.

Today he covers, in CRM B.U., the position of Leads Segment Leader and he is in charge of coordinating all Operations deliverables, for leads segment of the market, and for all new product developments within this segment. He coordinates, as Core Team Leader, an international team aimed to deliver in US market leads with a drug eluting component complying with FDA requirements.





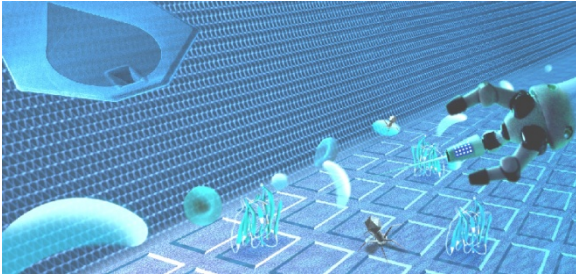


# Contents

---

- 1. What we know about our AB members**
- 2. What our AB members know about us**
- 3. Let's meet together: First AB Meeting Paris, April 3rd**
- 4. Waiting for their feedback...**





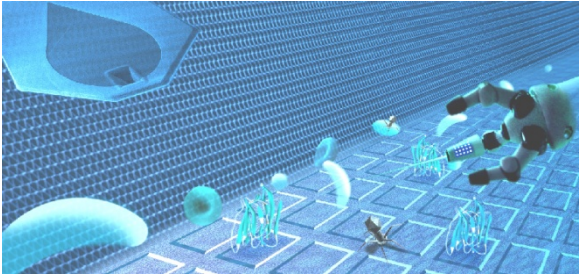
## What our AB members know about us

---

The following documents have been provided to the Hydromel Advisory Board before the Paris Meeting:

- Hydromel Advisory Board presentation (available on project private web site)
- Hydromel – an European project for future hybrid assembly (paper presented at the Smart Integration System workshop in Brussels, March 2009)
- Documents provided have been approved by Core Steering Board before dissemination to the Advisory Board in order to protect confidentiality related to some results under development in the consortium.



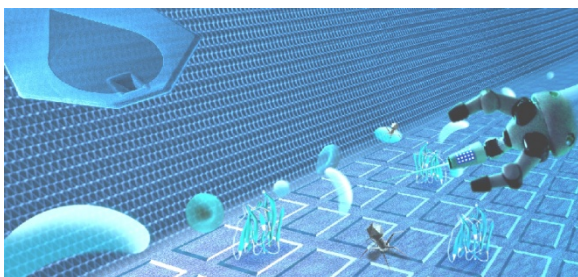


# Contents

---

- 1. What we know about our AB members**
- 2. What our AB members know about us**
- 3. Let's meet together: First AB Meeting Paris, April 3rd**
- 4. Waiting for their feedback...**

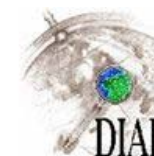


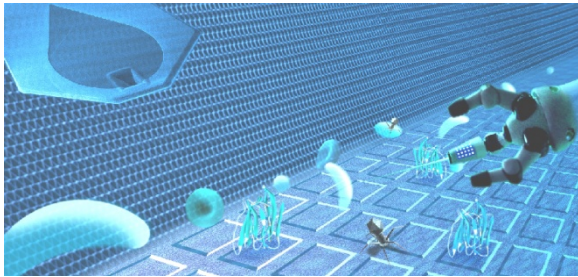


## First AB Meeting Paris, April 3<sup>o</sup> Agenda

Hydromel partners had the chance to have their first meeting with the members of the Advisory Board in Paris, after the 30 Months Technical Meeting General Assembly. The meeting was hosted by Alma in its brand new headquarters located in Gennviellers. All the AB members were present.

Time	AGENDA ITEM	Led by/ Remark
8:30 – 9:15	Welcome & Overview Hydromel presentation	A. Steinecker, CSEM, Coordinator
9:15 – 10:30	Presentations about Hydromel Demonstrators	Hydromel Demonstrator Responsibles
10:30 – 11:00	Coffee Break	All
11:00 – 13:00	Open discussion & Exchange of Information	All
13:00 - 13:30	Summary and Action Plan	A. Steinecker, CSEM, Coordinator
13:30 – 14:30	End of Meeting and Lunch	





## **First AB Meeting Paris, April 3rd**

### **Welcome & Overview – Hydromel presentation**

#### **Coordinator – CSEM Dr. A. Steinecker**

---

Objective of the meeting has been mainly to analyse industrial relevance of Hydromel results and to investigate new business opportunities outside the consortium in comparison with European and above all worldwide market. All the members of the board has a strong industrial oriented view being involved since many years in nano-manufacturing process chain with experience in US, Asia and Japan.

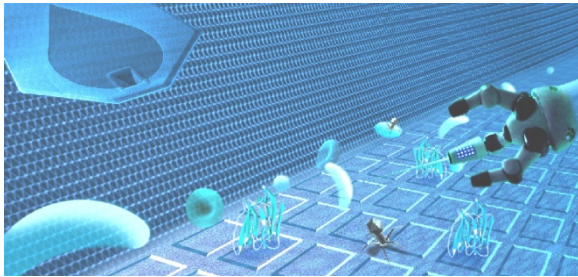


*Official Presentation of Hydromel project to the Advisory Board  
by the coordinator CSEM (CH) – Dr. A. Steinecker,  
Paris April, 3rd 2009*

---







## First AB Meeting Paris, April 3rd

### Presentations about Hydromel Demonstrators

### Demonstrators leaders

---

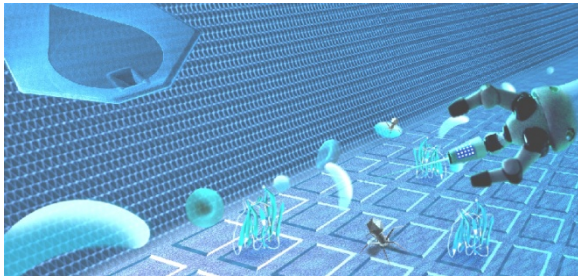
All the DEMO leaders have been called to present positive and critical points of Hydromel demos to the Advisory Board. Information exchanged in this phase has been the basis for the common open discussion that followed later. In this stage DEMO leaders summarised what Hydromel consortium expects from the Advisory Board:

- To get an “out of the box” view of Hydromel project
- To get a feedback about potentialities for industrialisation of Hydromel technologies
- To be aware of business opportunities available outside Hydromel
- To get a feedback about status and health of the project (potential investors, niche markets, new markets, etc.)
- To receive specific technical support on selected topics



*Demo leaders presentations to the Advisory Board  
Dr. Jens Taprogge CSEM (CH) – Leader Demo 1  
Paris April, 3rd 2009*





# First AB Meeting Paris, April 3rd

## Open discussion & Exchange of Information

### Comments from the Advisory Board

### after the presentations

---

An open discussion followed the general presentation of Hydromel contents and started with the collection of the comments/impressions from the AB members after the first round of presentations.

*Alain Codourey* noted: "I can see interesting results in merging robot positioning + self assembly techniques, but further efforts are needed to integrate and finalise the progress made and keep the project always on the right way till the end."

*Andrea Reinhardt* commented : "I'm very interested to Demo2 related to Tags Assembly. Tags assembly market can be a great opportunity for Hydromel results and the Hydromel approach is quite challenging. I recommend a strong industrially oriented approach in designing orientation techniques, because tags orientation is the key – issue to face successfully this market".

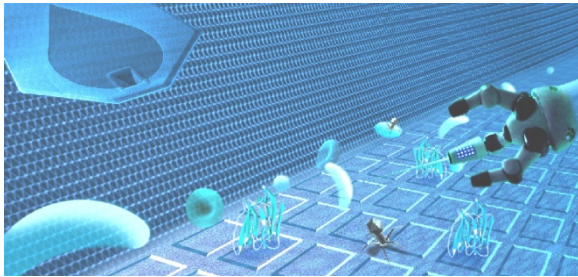
*Davide Giaquinta* was then called to give his comments: "I'm very impressed by possibilities related to performance of some activities and in particular I was struck by throughput achieved in DEMO 3. Important features are also manufacturing time, profitability of the company and this should be also taken into consideration. I would suggest a comparison in DEMO3 with other running projects on the same topic".



*Open discussion among AB members and Hydromel partners*  
*From left to right: Phil Keenan, Davide Giaquinta, Luigi Occhipinti,*  
*Andrea Reinhardt , Alain Codourey, Alexander Steinecker*  
*Paris, April, 3rd 2009*







## First AB Meeting Paris, April 3rd

### Open discussion & Exchange of Information

### Comments from the Advisory Board

### after the presentations

---

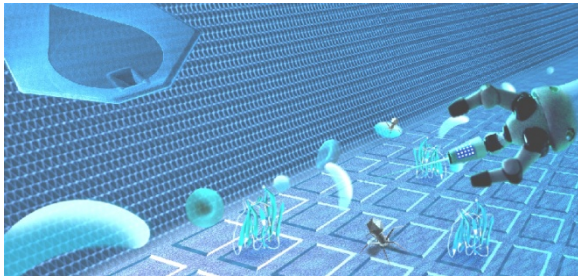
*Luigi Occhipinti (ST MICROELECTRONICS)* continued saying that” I’m deeply impressed by the huge number of activities and demos, of which some are very close to market exploitation, some are exploitable in the longer term. In the first case some more efforts in benchmarking are needed, such as in the case of RFID fluidic assembly, where could be very useful to get more information about cost analysis and throughput. In the second case, longer term exploitation, more fundamental research is needed in DEMO4, where the project covers a wide range of technologies. Anyway I think that overall the project is well organised and structured.”

The first round of comments was concluded by Phil Keenan:”I was formerly employed in my past carrier in IBM corporation and Hewlett Packard and several times I had to face the problem of assembly. Here the critical issue is that the market is not ready yet to integrate self assembly technologies, because components are not designed for them. Anyway I think that the challenge in DEMO2 is quite stimulating and risk in terms of scalability of process at industrial scale should be carefully evaluated. In general I think that the project is impressive for the high level of expertise and technologies brought together”.



*Open discussion among AB members and Hydromel partners  
Paris, April, 3rd 2009*





## First AB Meeting Paris, April 3rd

### Summary and Action Plan

---

AB members agreed with the general statement that Hydromel project is impressive for the amount of R&D activities carried out, number of technologies and demonstrators addressed, high technical level.

The technical discussion with the AB members spaced from the discussion of demonstrators technical details to actual trends in nano – manufacturing worldwide market, emphasizing the importance for European SMEs to keep innovating and to build knowledge intensive company. AB members highlighted how high – level skills and expertise can be the winning factor to keep mass production in Europe and to be competitive with Asia.

An extract from the final advise of each member to the project:

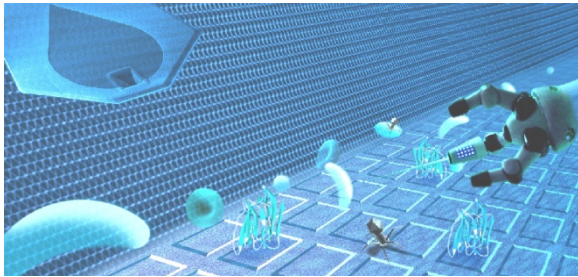
- *Phil Keenan: "Keep developing and disseminating as you are doing now, this is the future"*
- *Davide Giaquinta: "To share more knowledge with the outside world and to give more evidence on the final real benefits for industry"*
- *Luigi Occhipinti: "Keep challenging and comparing with existing technology"*
- *Andrea reinhardt: "Makes results more easily accessible and put them on the public web site, making very clear who are the customer groups you want to achieve"*
- *Alain Codourey: "Very important is to have benchmark, that means not what it is the state of the art, but above all what I bring that it's better with respect to state of the art"*

Other comments will be collected from the AB Members through the Feedback form

Next AB meeting is settled for April 2010 in Torino.

---





## First AB Meeting Paris, April 3rd

### End of meeting

---

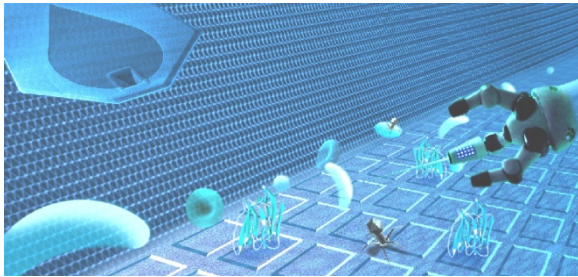
After the end of the meeting Hydromel partners had the chance to meet directly the AB members and to discuss and exchange information with them on specific topic.  
The meeting was useful to start a fruitful collaboration with AB members and also to establish unilateral contacts.  
See you in Torino in Spring 2010.



*Face to face meeting after the end of the Advisory Board  
Phil Kennan (left) with Hydronel partner NASCATEC (right)  
Paris, April, 3rd 2009*








# Contents

---


- 1. What we know about our AB members**
- 2. What our AB members know about us**
- 3. Let's meet together: First AB Meeting Paris, April 3rd**
- 4. Waiting for their feedback...**







hydromet



hydromet

**HYDROMET**

FP6 Contract: NMP2-CT-2006-026622

**Advisory Board feedback form**

**1. Meeting data**

Meeting date	17 April 2008
Name of the Advisory Board member	

**2. Technical Impression**

Relevance of particular topics

	Relevance	Self-relevance	Hybrid relevance
How points for use			
State of the art			
Other actions involved in same context			
Questions			
Remarks			

**3. Personal Impression**

Ways to participate in the advisory board next time

\_\_\_\_\_

Has personal benefit from joining the advisory board

\_\_\_\_\_

**4. Recommendations**

Recommendations and spontaneous remarks

\_\_\_\_\_

