

Interuniversity Attraction Poles V/16:

The Loyalties of Knowledge.

The positions and responsibilities of the sciences and of scientists in a democratic constitutional state

Progress report 2003

1. DESCRIPTION OF THE WORKPACKAGES

Work Package 1: Prototype Researches taking the Web as the Main Territory to Explore

The project started with a first series of seminars "Exploring Controversies" involving sixteen 4th year students in bioengineering. It is currently going on with a new group of twenty-five 4th year students in bioengineering. The students are organised in teams of four or five; each group has access to a computer connected to the Internet. During the first session, each team chooses one topic among a series of proposed controversies, proposed with a short comment. Afterwards, they explore the Internet in order to map and describe all positions relevant to the chosen controversy. The idea underlying this approach is that, besides knowledge building about the given topics, the students also have to strive to study how the arguments interlock, ignore each other, reinforce each other, or contradict each other. The exercise is thus to map the interventional landscape and explore the possibilities that scientists and practitioners have to use the Web to come in contact with the host of positions, criticisms, denunciations, and promises that clash with each other about the prospects opened up by their research. The ultimate aim is to foster new habits that will open the students to, even enable them to take part in, the ongoing socio-politico-technical controversies.

A series of useful links and sources of information are given at the start: search engines (Google, Scirus), encyclopaedias (Britannica, Webencyclo, Columbia Encyclopaedia, Nupedia, Grand dictionnaire terminologique, Atlas), bibliographical tools (Web of Science, Highwire at Stanford, PubMed, INIST, Agrimonde), summaries of scientific journals (Ingenta), patent descriptions (Office de la propriété intellectuelle belge, INPI, European Patent Office)

The information collected by the students, as well as their analyses and comments, are downloaded in a web log (<http://www.imbrogl.io.be/controverses/>), also accessible to the other members of the IAP project and open to their comments and inputs.

The proposed themes for the seminars were selected and defined in 2003 by Nathalie Trussart and Jean-François Desaedeleer and, in 2004, by N. Trussart and S. Denys, with the help of the rest of WP1's team. N. Trussart, J.-F. Desaedeleer (2003) and S. Denys (starting 2004) are also actively managing the seminars and providing information and support to the students.

The available themes and the choice of the students can be studied in Annex I of this report and in the imbroglio-web log, where also the work in progress can be studied in real time: www.imbroglio.be/controverses/.

The seminars are just beginning, with one series completed and another still running. However, they are already yielding quite promising results. The Internet effectively allows the students to discover by themselves (with the permanent help of N. Trussart, J.-F. Desaedeleer and then S. Denys) that controversies cannot be organised simply on the mode: (scientific) "facts" *versus* (ethical) "values". The students do learn that political, commercial, economical and cultural dimensions need to be taken into account in order to understand fully the concrete significance of a "technico-scientific" proposition.

An overview of the work realised by and with the students during the first semester of the academic year 2003- 2004 was presented to the IAP network meeting on December 17th.

A contrasted analysis of the work produced by and with the students during both semesters will be presented to the next IAP network meeting in Paris in June 2004.

Staff working for work package 1

Prof. Dr. I. Stengers (co-ordinator), Prof. Dr. JC Grégoire (co-ordinator), Jean-François Desaedeleer (PhD student, IAP doctoral grant, full time January-December 2003), Nathalie Trussart (PhD student, IAP doctoral grant, full time since July 2002), Sébastien Denys (research scientist IAP, half-time since 1/1/2004), Dr. Marius Gilbert. (postdoc FNRS, October 2003-September 2004), Prof. Dr. Jacques van Helden.

J.-F. Desaedeleer left the project at the end of 2003, and S. Denys was hired on a part-time contract starting 1 January 2004.

Work Package 2: Conceptual research into the relations between knowledge and power

During 2003, this work package, worked upon by Nathalie Trussart, has focused on the way to interconnect the two main directions followed last year, namely, on one hand, the conceptual elaboration of Michel Foucault's analyses of power and knowledge, and on the other hand, the study of the gene in its multiple modes of existence according to the different practices where it appears.

Michel Foucault coined the technical term of "*dispositif*" - that should be translated as "device" instead of "apparatus" as translators used to do. This tool has proved to be able to give an account of specific connexions between power and knowledge in different modes of existence of the gene. Nevertheless, Michel Foucault used this term exclusively to diagnose situations where domination is exercised by humans on others humans. His epoch called for this thought. Our times, however, require another one. Distinguishing epochs allows us to construct an inheritance of Foucault's ontology of actuality, extending his way of thinking a case to new ones. Indeed, the technical term of "*dispositif*" possesses conceptual dimensions that allow us to escape any of its reductive use as weapon of denunciation (of power, structure or conspiracy). The gene in its multiple modes of existence can be displayed in different "*dispositifs*" according to different practices where it exists. Showing all the contingent constraints that make those existences of the gene possible turns out to be necessary to make visible contrasts between a desirable and an intolerable "*dispositif*" of the gene.

A set of correlations linking together heterogeneous humans and non-humans, what is and is not said (enunciative, architectural, technologic elements), converges and produces a specific

device of power and knowledge. Adopting the point of view of a specific device is to focus upon the importance of the way(s) those elements belong to each other and to the device, ensuring the stability of the network they belong to and the necessity of this belonging. From the standpoint of the device, the different terms of the relation, device including, are produced in the immanent relation of their dependency, namely the changes that affect them. These variations tend to organise themselves around one particular point. Thus, the delinquent catalysed all elements of the "prison device", as described by Foucault. If a specific device of the gene is a real formation of power, it is because all variations the gene is affected by (in definition, in position, in belonging to, etc.) organise an un-substantial, real but yet abstract, field of potential. In their report, *L'innovation controversée: le débat public sur les OGM en France*, the team of Pierre-Benoît Joly, at INRA and CRIDE, has shown how each actor was focalised on how to make the gene exist. As a feedback, each change in the mode of existence of gene, produced by one actor or event, brought out variations in the way the others actors were in relation to the gene and to each other. Treating power as a device is a way to escape the distinction between *potentia*, a power that is exercised, and *potestas*, a power that is suffered. It is a way to escape both the mythical negativity of power as what is to be denounced and the mythical positivity of knowledge as pure and relieved of any power. The technical devices of our times forged together power and knowledge, culture and nature, the rule of law and the production of scientific knowledge. Following Isabelle Stengers, in a device, the term "power" is a *pharmakon*, telling nothing in advance of his potential as a remedy or a poison. We do not know what a specific device is able to produce. Setting a diagnostic of the different modes of existence of the gene is following its working in the different and specific devices where it exists, making us able to make visible contrasts between what they actually produce.

Nathalie Trussart participated in the seminar "*L'innovation controversée: le débat sur les OGM comme expérimentation collective de nouveaux rapports entre sciences, marché et démocratie*", in Paris (see under II.B co-operation outside the network). The seminar offered pertinent materials allowing us to construct a Belgian case study of GMO in contrast with what has happened in France. Connecting with legal elements produced by the VUB team (Work Package 6 and Work Package 7), and with technical and ethical standpoint of the UG team (Work Packages 10 to 14), a specific device of gene has been drawn. Several papers are in preparation.

Staff working for work package 2:

Prof. dr. I. Stengers (promoter), Nathalie Trussart (PhD student, scholar in philosophy for the IAP, full time since July 2002)

Workpackage 3: Conceptual research into the relations between knowledge and power

Like last year, progress was made on integrating the tools of science policy to those of public debates. The idea now is to produce by the end of the program an integrated work place where can be compared simultaneously the public web forum space we have been developing; the issue crawlers developed by Richard Rogers and Noortje Marres; the conversation mapping of Warren Sacks and the more classical tools of science policy developed around the web of science. The whole interface being made visible by Andrei Mogoutov's RéseauLu networks. This is a big undertaking and it's far from final, but we made some progress. One of them was to create, inside the 4S a caucus, the Caucus for the cartographie of scientific controversies (CCSC) which is animated by Michael Flower. The other progress was to link materially the softwares for the web of science output and the issue crawlers. The idea is to have easy access

to the issues –who is debating what?- and to the cycles of credibility of the main participants detected by the crawler –who has authority? Who is working with whom? Etc. Conversation maps are much more difficult, and the work of Warren Sacks is being now tested to see how much of it can be relied upon. The main difficulty, which was worked and tested in Harvard during a term this year 2003, is to render the space readable so that we use the insights of the science studies field as navigator tools. We will have by the end of the year 2004 demos working on a dozen of topics which could be of interest for the research and for the teaching of students as well –see the workpackage 1. Conceptually, much work has been devoted to the shift from matters of fact to matters of concern, and to the whole aesthetic, politics and practicalities going with this shift. One of them, of crucial interest for the PAI, is the notion of disputable facts taking the place of indisputable matters of fact. This signals a shift from what we now call the first empiricism –divide between what is undisputable and what is disputable- to the second empiricism. The key change is that it's not an explication of the science, nor a debunking of its claims to reality, nor a weakening of its ability, but, on the contrary, a way to get closer to what is empirically at hand. The aim is to modify the critical urge and to substitute 'critical proximity' to 'critical distance'.

Staff working for workpackage 3:

Prof. dr. Bruno Latour (Promotor European partner), Noortje Marres (PhD doctorate), Richard Rogers*, Sylvie Lupton (post doctoral fellow).

Workpackage 4: Study of a scheme to evaluate biosecurity in connection with GMO's

During the year 2003 the research was carried on by Jean-François Desaedeleer through the initiation of his doctoral project. At the Service of Biosafety and Biotechnology (SBB-Brussels), he focused his attention on files build by candidates who have introduced an official demand for an experimental release of transgenic plant (Genetically Modified Micro-organisms). The case of the Maize Bt was selected by J.-F. Desaedeleer in order to investigate the possibility to carry on a study on agronomical alternatives to this transgenic plant. The purpose of this study is to promote (inside the frame of expertise of the SBB) the systematic studies of alternatives to the GMO techniques in order to produce a much more valuable assessment of the agronomical and socio-economical relevance of transgenic plants. A multicriterial analysis of various agricultural techniques against *Ostrinia nubilalis* has been initiated.

The contract with ir. Desaedeleer (who was contracted by the ULB) has been ended as of 1st January 2004.

Staff working for workpackage 4:

Prof. dr. F. Mélard (co-promotor), prof. dr. J.-C. Grégoire (co-promotor), prof. dr. I. Stengers (promotor), prof. dr. E. Zaccai (senior scientist, IGEAT), Ir. J.-F. Desaedeleer (PhD student)

Work package 5: Study of multidisciplinary research schemes for public action

Marc Mormont and François Mélard have been involved in the assessment of the first national Citizen Conference which was organized by the King Baudouin Fondation. The aim of this Citizen Conference was to gather the opinion of a panel of 30 citizens on the Gene testing's topic. An interesting study on the functioning of this new kind of Public action has been made. Precisely, on the interactions of scientific expertise and the reasoning and action of lay persons. A report is now available at the King Baudouin Fondation.

As a second case study, Marc Mormont and Gwennaëlle Verjans are going on with the study and participation in the deliberation process that takes place between local population, media, social scientists and engineers around a siting project of low level radioactive waste in Belgium.

Staff working for workpackage 5:

Prof. dr. M. Mormont (promotor), prof. dr. F. Mélard (co-promotor) and G. Verjans (part-time researcher)

Workpackage 6: The relationship between law and science from the perspective of law and legal theory

As announced in the 2002 annual report, Laurent De Sutter is exploring the relationship between law and science from the legal theoretical point of view, with regards to two directions. The first direction is purely theoretical. It aims at re-conceiving the legal theoretical apparatus without continuing to give credits to what has until now constituted its realm of concepts and disciplines. This aim was primarily given room through a collaboration with Prof. Dr. Serge Gutwirth regarding an analysis of Bruno Latour's concept of law as exposed in *La fabrique du droit*. This collaboration first gave birth to an extensive review article (which has, already before its publication, been hugely commented, cf. *imbroglio.be* in the *tree of questions*), to a round-table with Bruno Latour, as well as several discussions with other researchers on the project's website.

Laurent De Sutter's second direction of research is issue-driven. In order to grasp the changes into the democratic constitutional state with regards to the particular case of genetically modified food, a key-concept seemed to be the concept of "representation" – as it is mobilised by both interested people, institutional actors, and constitutional lawyers alike. For every actor of the GM-food case, representation seems to be both the problem and the solution. The problem: representation is not correctly insured. The solution: it is only with good representation that the breach between the public and the decision-makers can be filled. A very interesting example of this paradoxical status of representation is the citizen forum held by the ViWTA for the Flemish Parliament in March 2003. Laurent De Sutter is currently studying the contemporary challenges to representation and a way to conceive better representation – and then, better democracy – starting from this very practical example, and the comparison with other participatory technology assessment methods used in other European countries (EUROPTA project). The central feature to reassess in this picture seems to be the concept of "public" of representation: the main contemporary challenge to representation seems to be to imagine how to operate the jump from the guaranteeing of a given public (the "people" or the "nation") to the case-by-case construction of a specifically interested public. This research, which is at the core of Laurent De Sutter's PhD project, is also carried on in collaboration with the IAP workshop II "How citizens make for experts" built as an inter-working groups think tank.

A first bridge has been built between these two directions of research at the occasion of an intervention to the Conference of the IVR in Lund, Sweden, in August 2003.

Mireille Hildebrandt has continued her research into the relationship between science and law. She designed a complex case-study for first year law-students in Rotterdam on the subject of 'science in court', whereby students are challenged to develop insight in the so called 'Catch 22' dilemma of the judge. This Catch 22 (referring to the novel of Joseph Heller) indicates the fact that while a judge calls for an expert-witness because she lacks the expertise to decide on the facts of the case, the same judge has to decide which expertise and which expert she will hear. On top of that the decision on the facts is a legal decision attributed to the judge (or jury), who will have to evaluate the validity and relevance of the expert-testimony. This seems to beg the question: if she can judge the expertise why does she need it in the first place. Actually this relationship between a judge and expert presumes that a lay-person can ask the right questions and acquire enough insight to decide: it indicates that significant communication between lay-persons and experts is possible and that the final judgement is not necessarily with the expert.

The matter of communication between expert and lawyer in court was explored more specifically in a paper presented at the Conference on Legal Argumentation in Rotterdam and in an article for the Dutch Journal for the Judiciary on the role of expertise in court. The same issues were explored in a guest-lecture in Rotterdam concerning the relationship between genetics and law, starting from the famous 'Kelly-case' in the Netherlands that concerns genetic testing of an unborn child. This topic was presented at the plenary network-meeting of the IAP in June. The matter of human genetics is relevant for both this wp and wp 8 on correlated humans, so will be further elaborated in the report on wp 8.

Mireille Hildebrandt presented a paper at the Aquinas Conference on Restorative Justice in May. One could see restorative justice as an attempt to 'empower' citizens (victim and offender in criminal cases) outside the criminal trial. In this way it shares certain features with participatory Technology Assessment (no final judgement, no compulsory jurisdiction, importance of the facilitators, informal procedure). In both cases citizens take direction over the things that impact their lives (crimes, technology) instead of leaving it to official state-institutions to decide for them (criminal trial, consultation of experts in the framework of policy preparation). Also an article was published in the Dutch Journal for criminal law in which the procedure, legitimacy and effectiveness restorative justice was compared with the fair trial.

Mireille Hildebrandt also gave a LL.M course at the VUB on 'critical perspectives in comparative and European law' in which she gave special attention to the mutual relationship between the development of the civil law tradition and the emergence of modern science. This was done in comparison with the advance of science in the islamic and asian legal traditions. As many elements of modern Western science have their roots in technologies and expertises developed in these traditions, it is very important to research the completely different cosmopolitics of these traditions. The work of the American philosopher of technology Don Ihde has been very fruitful also from this respect. Mireille Hildebrandt visited Don Ihde in New York and joined one of his research seminars.

Staff working on workpackage 6:

Prof. dr. S. Gutwirth (Promotor, network co-ordinator), Prof. dr. M. Hildebrandt (parttime postdoctoral researcher, seconded from Erasmus University Rotterdam), L. de Sutter (full-time PhD student)

Workpackage 7: The legal status of knowledge and information

Wim Schreurs focused his research on the issue of access to information in an information society. The term 'information' here is not linked with DNA or GMO's, but to 'content' in the

broadest sense. The principle of 'access to information' has to be seen in two ways: on the one hand, it means that persons should have access to a broad range of information at any time and at any place. But on the other, more and more, people need to provide their personal data as a condition for getting access to this information.

Both forms of access to information appeal legal problems. On the one hand some sorts of information are subject to exclusive and exclusionary rights (IPL, know-how protection, trade secrets, sui generis protection, ...). On the other hand, the access to personal data is limited by privacy and data protection law.

Wim Schreurs is elaborating a PhD on *Privacy and data protection in an information society with special focus on ambient intelligence*. Ambient intelligence refers to the linking of billions of computers which are integrated in products and services, even in humans, and where the above mentioned circulation of information occurs automatically and even autonomously. The fast emergence of PDA's, electronic identity cards, credit cards, location based services, radio frequency identity tags, integrated chips and the all over computerization illustrates this evolution. Therefore, legal aspects such as the right to anonymity and/or multiple identity in order to get 'free', 'unrestricted' and 'safe' access to information is a main issue of the research (which is also linked to the FIDIS FP6 NoE)

Daniel de Beer has come to the following conclusions: you don't have one GMOs' legal status, as we can call that. This legal status is still under construction, in spite of what European institutions claim (for Belgium as well as for European countries, but the core of GMOs matter is at the European level). Actually as one question seems to be solved by one clause, another occurs. It seemed important to understand in which game we find ourselves. After reading about hundred regulations, green or white papers, communications, drafts, road maps and so on issued by the European institutions and especially the European Commission since 15 years, it became obvious that the Commission has been steadfast in its efforts to achieve a constant policy. Due to crises, citizens' worries or new environmental concern, the Commission often updated its policy project without changing its mind. The principles underlying its policy have never been altered. In fact you have a complex device (*dispositif*, cf. workpackage 2) working to prevent free GMOs cultivation (as well as open market access) from happening and expanding. But this is not enough to explain what is going on. Three kinds of cartography closely interlinked have been done. Firstly on the different levels or institutions that are concerned with GMOs "in law". Subsequently on what these institutions say, on how they explain their "legal attitudes" about GMOs. Thirdly on the policies and the rules these institutions are carrying on concerning patent issues. Indeed, the intellectual property rights, especially patents, are a key issue.

Based on the research Daniel de Beer carried out during his half-time mandate in 2003 (now converted into a fulltime mandate) he will submit a proposal for a doctorate in April 2004.

The work of Nicolas de Sadeleer during 2003 has mainly consisted of his work on the international and European law on biodiversity. The chapters on genetic diversity, intellectual rights on living things and on GMO's have been completed in the framework of the IAP. This work will be published as a book at Dalloz in Paris at the end of 2004. It will be distributed widely internationally thanks to the support of the Ministry of Foreign Affairs.

Serge Gutwirth and LSTS (VUB) are a partner-promotor in the *submitted* proposal for an IWT-SBO project *An interdisciplinary research project on FLEmish E-publishing Trends*. Proposal submitted by a research consortium composed by Research groups of VUB, UG, KUL and Infonomics (NL)

Staff working on workpackage 7:

Prof. dr. S. Gutwirth (promotor, network co-ordinator), D. De Beer de Laer (part-time researcher), Prof. dr. N. de Sadeleer (senior scientist) and Wim Schreurs (assistant faculty of law, VUB)

Workpackage 8: Correlated man and man as seen by law

The research of Wim Schreurs on correlated man is also linked with Workpackage 7. If the (automatic) processing of personal data (through identification and authorisation measures) becomes a condition to access to information or services (e/g. listening to music, going to a museum, electronic payment, facilities access controls, GSM-use ...), higher possibilities of detection and profiling are generated. How to organise and limit the risks for profiling once information providers have got access to the data? How to create transparency of the origin and nature of information? How to implement the laws concerning protection of personal data in technology in order to avoid profiling? When can data be used for profiling and when not? In his research, Wim Schreurs tries to study the map of technologies and scenarios in order to make a link with the legal field, especially concerning privacy and data protection.

Mireille Hildebrandt has worked on the relationship between human genetics and law, that can be seen as a nexus between the two transversal themes of the IAP. The advances in genetic research impact both food security because of the introduction of GMO's and the emergence of genetically correlated humans. She took an intensive course organised by the Academic Hospitals of Leyden and Rotterdam Universities on 'genetics and society'. The course formed an interesting confrontation with the imbroglia of genetic testing, public and private funding of scientific research in the field of human genetics and legal matters such as liability and patents. She gave a guest lecture at Rotterdam University on the subject of human genetics and fair trial, demonstrating the decisive influence of legal procedures on the development of research. This topic was tentatively elaborated at the plenary network meeting in Gent in May under the title 'Help my genes are correlated?'

Mireille Hildebrandt has also put a lot of effort into the proposal for a Network of Excellence, which very soon will be financed and launched by the European Commission in its FP6 program (cf. *supra*). The network will co-ordinate, integrate and spread knowledge on the Future of Identity in Information Society (FIDIS), from a technological, scientific, social theory, business, human rights and other relevant perspectives. The network consists of public and private research institutes involved in identification technologies and the social, legal and philosophical implications of these technologies. Together with Serge Gutwirth, Mireille Hildebrandt has been invited to co-ordinate the topic and workpackage on profiling, which comes very close to the topic of correlated humans. She presented an introduction of the contribution of the VUB in January and December, together with Serge Gutwirth. In the December meeting Serge Gutwirth shortly introduced the distinction between privacy and data protection (see above) while Mireille Hildebrandt introduced the distinction between self-identity and sameness-identity, positing that id-technologies can never touch the self-identity of a person as it is fundamentally indeterminate. However the idea is not to oppose sameness-identities, but to create and sustain the legal tools to operationalize the difference between correlated humans and humans as seen by law and to facilitate the development of self-identity. For the IAP the FIDIS network is very interesting, because of the multi-disciplinary character of the FIDIS partners: the possibility to reconceptualize legal concepts like legal subject, privacy, data-protection and the principle of precaution in close contact with the emergence of new technologies is a serious challenge. The idea is not to adjust the law to the

priorities of autistic techno-scientific practices, but to be responsive to the ever changing context in which the law of a constitutional democracy does its work.

The LL.M course Mireille Hildebrandt taught (mentioned under the report on wp 6) also gave new insights into the different ways humans can be conceptualized by different legal traditions. The fact that western law sees humans as legal subjects with individual claim-rights is a product of modern developments within the civil law tradition. Other traditions seem to have emphasized a relational subject that is embedded in a web of obligations towards both humans and non-humans, rather than an individual subject with rights in relation to other human subjects. The challenge is how to learn from these other traditions without washing away the checks and balances of the democratic constitutional state, or rather, how to reconceptualize the rule of law in such a way that it can function beyond the national state (correlated humans and GMO's appear at a transnational level).

Serge Gutwirth has been further exploring the concept of 'correlated human' in contrast to the concept of the 'law's human'. This has led to a presentation ('L'humain corrélé et l'humain du droit') during the plenary network meeting of 23 May 2003 at Gent university and a posting 'What is a correlated human' in the tree of questions in the imbroglio website. During the discussions following the presentation and the comments given on imbroglio.be it appeared that the concept of 'correlated human' remained unclear and controversial. It might be more appropriate to refer to the 'detectable human'.

From a more positive legal perspective the concept of 'correlated human' (or 'detectable human') mainly addresses issues related to privacy, data protection and identity. Continuing his longlasting cooperation with prof. Paul De Hert, Serge Gutwirth wrote a report *-Making sense of privacy and data protection*, see *infra*- on the impact of the technological developments in the field of location based service, identity management systems and the virtual residence on privacy and data protection. In this report the authors came to the conclusion that two complementary sorts of legal tools can be used to deal with power in a democratic constitutional state: tools of opacity protecting and shielding individuals against intrusions on the one hand, and tools of transparency aiming at visibility of power in order to stimulate its control and accountability. Although no clearcut distinctions can be made, it can be stated that privacy is a tool of opacity limiting the exercise of power upon the individual by conceptualizing an opaque individual sphere, while data protection is a tool of transparency because (left aside some exceptions) it does not prohibit but channels, organizes and regulates the processing of personal data. These concepts will help us to understand the legal dimensions of the emergence of the correlated.

Related to the issues mentioned above and linked to the research of this workpackage Serge Gutwirth, who chairs the *Law Science Technology Society* (LSTS) research group, participated as a promoter into three 6th Community Framework Programme in Research and Development (FP 6) initiatives.

Firstly, he is, together with Mireille Hildebrandt, the promotor of the partnership of LSTS in the FP6 Network of Excellence *The future of identity in information society* (see *infra*).

Secondly, he is the promotor of the partnership of LSTS, which will take care of issues relating to data protection, in the *submitted* Integrated Project Proposal *Reflexive Governance in the Public Interest (REFGOV)-Subnetwork : Fundamental Rights Governance* under the FP 6, Priority 7: Citizens and Governance in a knowledge based society; Theme 2 : Citizenship, democracy, and new forms of governance

Thirdly, he is the promotor of the partnership of LSTS, which will again take care of issues relating to privacy and data protection in the *submitted* Proposal for the Specific Support Action (SSA) *Safeguards in a world of ambient intelligence (SWAMI)* under the FP 6, Priority 8.1: Policy-oriented research

Staff working on workpackage 8

Prof. dr. S. Gutwirth (promoter, network coordinator), dr. M. Hildebrandt (parttime post doctoral researcher), W. Schreurs (assistant, Faculty of law, VUB)

Work package 9: Mathematical practices, statistics, and society

Our research included the following core themes:

We try to understand

- mathematics as the purest closed structure through the meta-methodological framework of Discourse Theory.

-Platonism as the mainstream ontology and the anti-metaphysical ontology as the antagonist.

We started an empirical research re the spread of the differing ontologies.

How is mathematical knowledge passed down from generation to generation? Is there room for a philosophy of mathematics in the secondary school curriculum of mathematics?

An empirical inquiry has been done by screening the curricula (at the level of the Flemish Community and of the authorities of the differing school systems).

Our results gave us the opportunity to do a presentation at the congress: “International workshop on Mathematics as/in Culture” VUB on 4th December 2003.

We shall be organising an international congress to be held on the 14th and 15th of May, 2004 at the VUB, Brussels.

When does mathematics become political? A philosophical inquiry into the politics of mathematical formalisation and objectification as a method to reach the best level of certainty. The concept of politics, as elaborated by Bruno Latour (WP 3) in *Politiques de la nature* is used in the investigations of the ‘politics of mathematics’. A working paper is published on the Imbroglia website.

The role of mathematics and logic in the construction of a (public) proof. We are looking for a generic definition of a proof, commencing with mathematical proof, including theory of argumentation, and making use of biological metaphors to work out an “ecology” of proofs and arguments. (in collaboration with WP 6 to 13).

Staff working on workpackage 9

Prof. dr. Jean Paul Van Bendegem (co-promoter) Hans Comijn (full-time PhD student since March 2002) Karen Francois (full-time PhD student since October 2002)

Work packages 10, 11, 12 and 13

The research in these four work packages is intertwined in the actual case studies undertaken by the involved researchers, and is reported as such.

Drs. V. Smet is working on a PhD on the (problematic) relationship between social science, scientists and policy. Therefore a framework is used that consists of four categories: ‘expertise’, ‘procedure’, ‘role and function of social science’ and ‘neutrality/(in)dependence/responsibility’. Case studies are being used and an attempt is made to confront the

theoretical literature on the subject with the day-to-day practice of social research and policy in Belgium.

Dr. D. De Waele studies practices in the natural sciences, in casu in agro-biotechnology and of dito scientists/experts. She focuses on the 'GM Food' case and follows ongoing GM Food research, risk analyses and risk management, and debates on risk perception and communication.

Dr. G. Cazaux analyzed practices in the domain of current animal rights/animal ethics and of legal scientists/animal welfare experts.

Analysis of the relationship between social science/scientists and policy:

- An inventory was made of the literature on knowledge utilization, policy and policy-models. Policy-documents on the Belgian science policy were analysed, as was literature on the relation between social scientists and policy-makers. The latter was also the topic of the Conference *Ménage à trois: over de driehoeksverhouding tussen pers, politiek en politicologen* (organisation Vakgroep Politieke Wetenschappen, Ugent), Flemish Parliament, Brussels, 9th of December 2003. Concerning WP 13 the Conference on science and communication (organized by Wecom, Flemish Parliament, Brussels, November 17th) was attended by V. Smet.
- Contacts were made with people working on the UNESCO MOST-project on 'social science and governance' (KULeuven, ULB) and other researchers working on migration and policy (KULeuven, University of Amsterdam). This will result in the publication of a thematic review on the role of social scientists in policy, in spec. migration policy, in *Ethiek en Maatschappij* (foreseen: fall 2004). Concerning migration, minorities en policy the following conferences were attended: January 22th: Debate 'Media en allochtonen' (organized by Forum Voor ZelfOrganisaties Vlaanderen-FZO-VL, De Centrale, Gent), February 12th: Presentation of Marion Van San on 'Is wetenschappelijk onderzoek rond het thema criminaliteit en allochtonen mogelijk?' organized by Antwerpen Overmorgen, 't Brantijzer, Antwerpen), April 4th: 'Politiek debat met allochtone politici (organized by Forum Voor ZelfOrganisaties Vlaanderen-FZO-VL, De Centrale, Gent), April 24th: 'Provinciaal debat rond integratie, tewerkstelling, scholing en het offerfeest' (organized by PICO, Aula, Sint-Niklaas).

The 'Van San' case:

- The analysis of the 'Van San' case, concerning the research on juvenile delinquency of migrants, formulated as the relationship between ethnicity and crime (ordered in September 1999 by the Minister of Justice for the Federal Government of Belgium and done by Marion Van San), was continued. The proceeding of the follow-up research, ordered by the Flemish Minister of 'Welzijn, Gezondheid en Gelijke kansen', was also studied.
- Interviews with actors on the policy level (cabinet, steering committee) and with social scientists (Marion Van San, research supervisors, Belgian scientists working on crime and ethnicity, etc.) were conducted.
- This resulted in a report, *Een analyse van de casus Van San in termen van de relatie tussen sociale wetenschap en beleid* (June 2003, pp. 114), that was distributed for discussion to the promoters of the different IUAP work packages, to colleagues of UGent, and to Belgian and Dutch academic experts working on the topic.

The 'GM Food' case:

- In the overall process of ‘the making and commercialization of GM Food’, specific literature, documents, congresses and media releases were followed up, and interviews undertaken. Focused topics were e.g. the ‘Summary notifications’ of environmental releases of GMO’s (at the website of Joint Research Centre, Ispra); the Scientific Report 2003 of VIB research in 2002; the research and societal questions concerning Food genomics (at the Rathenau TA Institute, The Netherlands); the reports of the public/citizen forums on human genome issues in Brussels (Koning Boudewijnstichting –March 28th 2003) and on GMO’s in Beernem (April 26th 2003); the public forum on GM Food in Brussels (viWTA – 24/26 May 2003) and its report *Public Forum. New impulses for the debate on genetically modified food*; the discussion in scientific journals and in the media concerning the promises of GM crops versus actual successes or yields, concerning costs and benefits of GM crops in field trials or in ‘real’ agricultural settings in different countries; and the conference *Risk Perception: science, public debate and policy making* in Brussels (European Commission – 4-5 December 2003).
- Ongoing research dealing with the question of ethical acceptability of agrobiotechnological developments was presented at the IUAP seminar at the VUB (October 9th 2003), *Preceding and current ‘positions and responsibilities’ of a post-geneticist regarding the biotechnology debate: sketch of an experiencing and thinking process. Or: The very regrettable ‘unappetizingness’ of GM Food debates*; and was presented at the IUAP Network meeting on GMO’s at the ULB (December 17th 2003), *The GM Food debate: how tasteful is technology (and for whom)?*. As an outcome of the discussion on these presentations, a ‘Moral position statement’ is undertaken, and preparations are made for the work groups ‘Scientists and citizens’ and ‘Risk assessment’. Concerning the moral position/professional ethics of scientists and concerning scientific inform as an ethical duty, the case of an (interviewed) expert scientist as ‘whistle blower’ of possibly ‘subversive’ information is followed up, and is contrasted with other types of public confrontation of scientists. This ‘whistle blower case’ and the followed up ‘Gauchon case’ in France (Gauchon is the Monsanto seed insecticide that harms pollinating bees), now reported by www.agriculture.gouv.fr, are worked out to make part of the IUAP/PAI presentation at the 4S/EASST conference on ‘Public proof’ in Paris (August 2004): a proposition for cooperation was written.

The ‘Beastly markets’ case:

- In November 2000, the Belgian animal advocacy organisation GAIA released footage of an undercover operation at two Belgian cattle markets (Anderlecht & Ciney) with images of miscellaneous abuses perpetrated by cattle dealers and transporters. The images were broadcasted around the world and evoked national and international public indignation. We examined the protest action, which evolved around this case (with subsequent prosecution, acquittal of the defendants, and protest marches at the Court of Justice), and more in particular how diverging experts' appraisals regarding animal welfare are set against one another in this debate.

Staff working on work packages 10-13

Prof. Dr. K. Raes (promotor), dr. Dani De Waele (postdoctoral researcher), drs. Valérie Smet (PhD student), dr. Geertrui Cazaux (postdoctoral researcher).

II TERMS OF CO-OPERATION

II.A. Co-operation inside the network

II.A.1 Imbroglio.be :

The co-operation inside the network is evolving on *imbroglio.be*

Imbroglio.be has two parts :

1. the *Tree of questions* aiming at the publication of 'stabilized' texts, opening up for discussion ("Comments") or for follow-up (new related questions). The idea of using "questions" as headers aims at waking up the interest of others for the texts and to show how some questions in one discipline might generate other question in other disciplines. There is also the possibility to post "homeless" texts without preliminary questions.

In order to enter : click "Tree of questions" or "read" (under "Tree of questions").

2. the *Weblog* aiming at communication, information and on the spot discussions amongst the IAP-members. It organises shorter and less formal exchange of thoughts, links and agenda-items.

Both the website and the weblog are functioning as *agora* of collective experimentation; sometimes they give rise to hectic discussions amongst researchers from different disciplines (for instance around Bruno Latour's *La Fabrique du droit*).

Articles published on *imbroglio.be* are described below under 'III.D Publications on Imbroglio'.

II.A.2 General network meetings :

See agenda and minutes in appendix II

5th February, at the ULB, the main theme was Isabelle Stengers' *Cosmopolitiques*

23rd May, at the UG, the main theme was correlated humans

17th December, at the ULB, the main theme was GMO's

2004 :

31st January, at the ULB, working with *imbroglio.be*

4th June, at the CSI-Paris, the main theme will be the exploration of scientific controversies

II.A.3 VUB-seminars:

All researchers of all teams are invited. These seminars are rather informal brainstorms initiated by a speaker. Agenda's, reports, comments and personal memories are posted on *imbroglio.be* in the web log.

February 13th : Mireille Hildebrandt (VUB-EUR), *Science in Court: Expert Evidence and the Attribution of Causality*,

March 13th : Valerie Smet (UG), *The Van San Case: Social Science and Policy*,

March 27th : Discussion of the concept of *The correlated human*

April 10th, April 24th & April 26th: Daniel de Beer (VUB), *Sciences du vivant et brevet: histoire et état des lieux*,

May 22nd : Prof. Em. Boehm (UG), *On an Interesting Subject*,

June 5th : Laurent de Sutter (VUB), *Que dire, que faire, que penser sans faiblir? Petit répertoire inquiet des doutes et scrupules générés par la recherche en droit* (text available in the Tree of questions on *imbroglio.be*)

June 19th : Karen François and Hans Comijn, *Philosophy of Mathematics*,

September 11th: Nathalie Trussart (ULB): *Dispositifs de savoir/pouvoir et multiples modes d'existence du gène: la construction d'un devenir-héritier de Michel Foucault*,

September 25th : Robby Berloznik (ViWTA), *ViWTA and GMO's*,

October 7th : Nicolas De Sadeleer (VUB-FUSL), *Legal Aspects of GMO's*,

October 9th : Danny Dewaele (UG), *Preceding and current "positions and responsibilities" of a post-geneticist regarding the biotechnology debate: sketch of an experiencing and thinking process. Or: The very regrettable unappetizingness of GMO-Food debates*.

November 13th : Virginie Gimbert (ENS-Cachan), *Le politique à l'épreuve des risques sanitaires*.

December 11th : Laurent de Sutter (VUB), *In the Name of What: A Few Reasons to Allow a Lawyer to Speak about Representation when Representation Is Challenged by Criticisms Coming from Those Who Think that We Could Do Better*,

II.A.4 Other forms of cooperation within the network

During the network meeting of December 17, 2003 it has been decided to install four working groups inside the PAI, with the expectation to stimulate cross-publication and cross-fertilization. These working groups WILL NOT comprise all the members of the IUAP. They are expected to meet independently and produce co-signed working papers as a starting point.

The first group, lead by Daniel de Beer (VUB), will focus on Daniels research on the European policy towards GMO'S.

The second group, following Jean-Paul Van Bendegem's question "When Is a Scientist a Scientist?" will engage the issue of the respective position of scientists, experts and citizens in the new procedures of democratic decision (e.g. citizens for a) appearing in relationship with GMO'S. Jean Paul Van Bendegem (VUB) will take the lead

The third group concerning the question of (scientific and political) “risk evaluation” will be lead by Sébastien Denys (ULB).

The fourth group, lead by Mireille Hildebrandt and Karen François, will dive deeper into issues related to the correlated human.

These working groups started up their activities in the early 2004 (cf. imbroglio.be, sub weblog)

Of course, next to these more formalized forms of cooperation, many informal forms of continuous cooperation, contacts and mutual exchanges are active amongst the researchers of the network (cf. also weblog). Drafts are commented, texts are exchanged, etc.

To give just a few examples :

- Valerie Smets' report on the Van San-case was distributed among the different promoters of the IUAP-project, and was discussed with the UGent-members and members from the VUB.
- Concerning the gene concept and the dynamics of the genome, D. De Waele gave side-notes to the research of N. Trussart (ULB) on Foucault and the gene concept. Exchange of information took place with E. Zaccari (ULB) concerning research and organizations (as e.g. the one of V. Shiva in India) involved in the ‘battle of numbers’ on promises versus actual successes of GM crops. Information concerning the followed up ‘Gaucho case’ in France (report and video) was distributed for eventual discussion and for incorporation into the students’ work on ‘Controverses’ (organized by the ULB-team), and into, eventually, the next Network meeting on ‘Exploration of controversial issues’ in Paris, June 4th 2004.
- Mireille Hildebrandt discussed drafts on the concept of correlated humans with Isabelle Stengers, Serge Gutwirth, Valerie Smet, Dani De Waele and Karen François. She also discussed the relationship between correlated humans and identification technology in view of the FIDIS Network of Excellence, with Karen François, Wim Schreurs, Jean-Paul van Bendegem and Serge Gutwirth.
- Laurent De Sutter & Serge Gutwirth's draft article on *La fabrique du droit* has been widely discussed with Daniel De Beer, Bruno Latour, Isabelle Stengers Nathalie Trussart on imbroglio.be, through email and finally during a meeting in February 2004

...

II.B. Co-operations outside the network

The list hereunder is not exhaustive as many of the researchers and promoters are involved in a great many activities outside the IUAP.

G. Cazaux presented “The case for/against ‘beastly’ markets. Divergent expert's appraisals of animal welfare” at the Annual Popular Culture Conference, New Orleans, April, 16-19, 2003.

Hans Comijn and Karen François organised an international workshop on Mathematics as/in Culture, Free University Brussels (in cooperation with CLWF/VUB), 4 December 2003.

Hans Comijn and Karen François are also preparing an International Congress “Is there room for a philosophy of mathematics in Mathematics in education”, Free University Brussels (in cooperation with CLWF/VUB), scheduled for spring, 14-15 May 2004.

Daniel de Beer gave a lecture on "Patents and Access to Drugs", Congress, "Access to drugs", (Brazilian Ministry of Health, ICPTech, MSF...), 2-4 December 2002, Rio de Janeiro, Brazil

Daniel de Beer gave a course on "Régime de propriété intellectuelle et sécurité alimentaire pour les pays du sud, le cas des OGM", March 2nd DEA, Faculté de droit, Aix en Provence, France

Daniel de Beer gave a lecture on "La participation des citoyens à l'administration de la justice", October 24th Centre de philosophie du droit ULB et OBF, Bruxelles

Laurent de Sutter gave an introduction on 'From Representative Democracy to Technical Democracy: A Lawyers' Insights', Werfgesprekken (tweede reeks) over duurzame ontwikkeling en beslissen in onzekerheid, DOCOP-VUB, 9th January 2004 (posted in www.imbroglio.be).

J.-F. Desaedeleer, J. van Helden and N. Verbruggen organised a seminar at the ULB: *OGMs – Une synthèse des enjeux*, on 12th May 2003

K. François, 'De noodzakelijkheid of de overbodigheid van 'De wet van Galilei'' resulted in a workingpaper "Waar wiskunde politiek wordt". The paper was presented at an interdisciplinary workshop "Werfgesprekken" at the Free University Brussels and it is published on the Imbroglio website.

Serge Gutwirth held a presentation on April 25th on *Milieurechtstheorie : welke basisconcepten voor het milieurecht?* [Theory of environmental law : which basic concepts for environmental law ?], Seminarie *Duurzame ontwikkeling* Doctoraatsopleiding [Seminar on *Sustainable development* for Ph. D.-Students] at the VUB.

Serge Gutwirth, together with Paul de Hert, gave a presentation in June on *Privacy and the future of identity, location based services and the virtual residence* to the ICT-unit of the Institute of Prospective Technological Studies (IPTS) of the European Commission's Joint Research Centre (JRC), Sevilla.

Serge Gutwirth gave the opening lecture on October 6th of the Masters of Legal Theory at the European Academy of Legal Theory on *La théorie du droit de l'environnement : de la protection de l'environnement à un processus de transformations mutuelles du droit et des sciences*, Royal Academy of Belgium, Brussels

Serge Gutwirth and LSTS (VUB) participated into the following 6th Community Framework Programme in Research and Development initiatives

- the recognized/granted Network of Excellence *The future of identity in information society* involving more than 20 research centra all over Europe (more than 20 European partners)
- the *submitted* Integrated Project Proposal *Reflexive Governance in the Public Interest (REFGOV)-Subnetwork : Fundamental Rights Governance* (more than 20 European partners)
- the *submitted* Proposal for the Specific Support Action (SSA) *Safeguards in a world of ambient intelligence (SWAMI)* (5 European partners)

Serge Gutwirth and LSTS (VUB) ar a partner-promotor in the *submitted* proposal for an IWT-SBO project *An interdisciplinary research project on FLEmish E-publishing Trends*. Proposal submitted by a research consortium composed by Research groups of VUB, UG, KUL and Infonomics (NL)

Mireille Hildebrandt presented a paper at the *Aquinas Conference on Restorative Justice* in Leuven, KUL, 2nd May 'Restorative Justice and the Morality of Law'

Mireille Hildebrandt presented a paper at the Symposium Juridische Argumentatie (Symposium on Legal Argumentation), at Erasmus University Rotterdam on 27th June

'Expert, burger en jurist: (hoe) verstaan zij elkaar?' (Expert, citizen and lawyer: (how) do they understand each other)

Mireille Hildebrandt gave an introduction at the kick-off meeting Workpackage 2 FIDIS NoE, 2 december 2003: 'Identity of identity: sameness and selfhood', (FIDIS NoE: European Union research network on the 'Future of Identity in Information Society'), Eurovillages Brussel, see <http://www.calt.insead.edu/fidis/>

Nicolas de Saedeleer has participated 27th February in a Workshop organised by the European Commission on the principle of precaution (centre Borchette).

Nicolas de Saedeleer has held a conference at the UCL on 'les DPI et le génie génétique' in March.

Nicolas de Saedeleer has given a course at Paris I-Sorbonne together with C. Noiville on the legislation on food in EU-law in March

V. Smet works as an editor for *Ethiek en Maatschappij* and organized a conference 'On 40 years of moral sciences', resulting in the publication of a thematic review, November 14th 2003, UGent.

Nathalie Trussart participated in the seminar "*L'innovation controversée: le débat sur les OGM comme expérimentation collective de nouveaux rapports entre sciences, marché et démocratie*", organised at Paris by Pierre-Benoît Joly (INRA), Claire Marris (INRA) and Christophe Bonneuil (CNRS), in partnership with the *Centre Koyré* and l'*Institut National d'Agronomie*.

Nathalie Trussart gave several presentations at the ULB:

Héritage de Michel Foucault : entre déconstruction et constructivisme, at the seminar of Isabelle Stengers « Philosophie des sciences et des techniques », in two parts (February and March)

Des gènes et des dispositifs de savoir/pouvoir, at the working group of GECO (Groupe d'études Constructivistes), in August.

In cooperation with Work Package 1, Nathalie Trussart has actively participated in the conception, the organisation, the training, the supervision and the follow-up of the seminar "Exploration de controverses" in the interfaculty of bio-ingenering at ULB. She was also involved in the running of our website *Imbroglia*, in close collaboration with our web-site designer Didier Demorcy.

D. De Waele is involved in the research group of Prof. G. Van de Vijver (UGent) and cooperates with Drs. Lien Van Speybroeck for her forthcoming PhD thesis on the contextual complexity of the genome. She is co-authoring a forthcoming publication of Van de Vijver, G., Van Speybroeck, L. & De Waele, D. on Philosophy of Biology in *Acta biotheoretica*. There is also a growing cooperation of this research group with Prof. M. Holsters of the VIB/UGent Plant Systems Department, in order to analyze the influence of Systems Biology on sustainable agriculture and its implications for science communication.

Edwin Zaccai (ULB) met with the NGO "Research Foundation for Science Technology and Environment" in Delhi. This NGO is led by the well-known Vandana Shiva, a scientist globally very active in the field of property rights on natural seeds and GMO's.

III LIST OF PUBLICATIONS

III.A. Publications 2003

Université Libre de Bruxelles (ULB)

STENGERS, I. et P. SONIGO (2003), *L'évolution*, coll. « Mot à Mot », Paris, EDP Sciences.

STENGERS, I. et B. BENSUADE-VINCENT (2003), *100 mots pour commencer à penser les sciences*. Paris, Les Empêcheurs de Penser en Rond.

STENGERS, I. (2003), « Penser les sciences par leur milieu », in *A quoi sert la philosophie des sciences ?*, Rue Descartes n°41, p. 41-51, 2003.

Vrije Universiteit Brussel (VUB)

DE SADELEER N. (2003), Le principe de précaution : un nouveau principe général de droit communautaire , in *Journal des Tribunaux de Droit Européen*, 2003, n°99, pp. 129-134

DE SADELEER N. (2003), Le principe de précaution , in *Sécurité & Médecine du travail*, février 2003, n° 137, pp. 42-43

DE SADELEER N. (2003), Safeguard clauses under Article 95 of the EC Treaty, *Common Market Law Review*, 2003, n°40, pp. 1-40.

DE SADELEER N. (2003), The Effect of Uncertainty on the Treshold Levels to which the Precautionary Principle Appears to be subject, in J.S. Applegate (ed.), *Environmental Risk*, vol. II, Serie *The International Library of Environmental Law and Policy*, Ashgate, London, 2003

DE SADELEER N. (2003), The Precautionary Principle in Europe and in the US: A Comparative Analysis, in M. DUMOULIN et G. DUCHENE (eds.), *The European Union and the United States*, Bruxelles, PIE- Peter Lang, 2003, pp. 329-381, avec J. TICKNER

GUTWIRTH S. (2003), 'Een korte reactie over de 'proceduralisering van substantiële rechten', in *En toch beweegt het recht*, W. DEBEUCKELAERE & D. VOORHOOF (eds.), *Tegenspraak-cahier 23*, Brugge, Die Keure, 2003, 255-257

DE HERT P. & GUTWIRTH S. (2003), 'Making sense of privacy and data protection. A prospective overview in the light of the future of identity, location based services and the virtual residence', in INSTITUTE FOR PROSPECTIVE TECHNOLOGICAL STUDIES - JOINT RESEARCH CENTRE, *Security and Privacy for the Citizen in the Post-September 11 Digital Age. A prospective overview. Report to the European Parliament Committee on Citizens' Freedoms and Rights, Justice and Homme Affairs (LIBE)*, July 2003, IPTS-Technical Report Series, EUR 20823 EN, p. 111-162. See also : <ftp://ftp.jrc.es/pub/EURdoc/eur20823en.pdf>

HILDEBRANDT M.(2003), De horizontale betekenis van de straf, *Tijdschrift voor de rechterlijke macht*, 2003-1, p. 14-20

HILDEBRANDT M. (2003), Mediation in strafzaken: afdoening buiten recht? Over de meerwaarde van het juridische, *Delikt en Delinkwent*, 2003-4, p. 353-375

SCHREURS, W., “Naar on-line bronnen verwijzen in België - een proeve van handleiding”, *NJW*, 26 februari 2003, 228-234.

SCHREURS, W., “Spam en elektronische reclame”, *NJW*, 2003-48, 1174-1185

SCHREURS, W., “Websites en Privacy policy - een must?”, *My Lawyer Info*, 2003

VAN BENDEGEM J.P. (2003), 'Ontwerp voor een analytische filosofie van de eindigheid', *Algemeen Nederlands Tijdschrift voor Wijsbegeerte*, jaargang 95, nr. 1, 2003, pp. 61-72.

VAN BENDEGEM J.P. (2003), 'Η δημιουργική αναπτύξη των μαθηματικών', in: Dimitris Chassapis (ed.): *Το επιχειρημα και η αποδειξη στα μαθηματικά*. Thessaloniki: Universitaire Pers van de Universiteit van Thessaloniki, 2003, pp. 29-68. (Greek translation of “The Creative Growth of Mathematics”. *Philosophica*, vol. 63, 1, 1999 (date of publication: 2001), pp. 119-152).

VAN BENDEGEM J.P. (2003), 'Draaien in cirkels of de relativiteit van funderingen', in: Johan Stuy; Jef Van Bellingen & Marc Van den Bossche (reds) : *De precisie van het lezen. Liber Amicorum Maurice Weyembergh*. Brussel: VUBPRESS, 2003, pp. 137-148.

VAN BENDEGEM J.P. (2003), 'Die Grenzen der Mathematik sind die Grenzen ihrer Darstellbarkeit', in: Michael H.G. Hoffmann (Hrsg.), *Mathematik verstehen. Semiotische Perspektiven*. Hildesheim: Verlag Franzbecker, 2003, pp. 258-270. (German translation of “Review article: The strange case of the missing body of mathematics. *Semiotica*, 112, 3/4, 1996, pp. 403-413.)

VAN BENDEGEM J.P. (2003), Book review of Dirk van Dalen, 'Mystic, Geometer, and Intuitionist. The Life of L.E.J. Brouwer'. Volume 1: The Dawning Revolution”. (Oxford: Clarendon Press, 1999), *Studia Logica*, volume 74, no. 3, 2003, pp. 469-471.

Universiteit Gent (UG)

CAZAUX G. (2003), Het Federaal Agentschap voor de Veiligheid van de Voedselketen, in: De Baets P., De Keulenaer S. & Ponsaers P., *Het Belgische Inspectiewezen. Een niet ingeloste belofte*, Maklu, Antwerpen, 155-171.

Centre de Sociologie de l'Innovation – Ecole Nationale Supérieure de Mines Paris (CSI – ENSMP)

LATOUR, B. (2003), 'The Promises of constructivism', chapter in Don Ihde (editor), *Chasing Technology : Matrix of Materiality*, Indiana Series for the Philosophy of Science, Indiana University Press, pp. 27-46.

[LATOUR, B (2003), German translation in Jörg Huber (editor) *Interventionen* 12, Zurich Edition Voldemeer, pp. 183-208 (2003).]

LATOURE, B (2003), Why Has Critique Run Out of Steam ? From Matters of Fact to Matters of Concern, *Critical Inquiry, Special issue on the Future of Critique*, (30) n° 2 pp.25-248 (Winter 2003).

Fondation Universitaire du Luxembourg (FUL)

III.B. CO-AUTHORED PUBLICATIONS (to be published)

DEBEER D. (VUB), DENYS S. (ULB), GREGOIRE J.-Cl. (ULB), STENGERS I. (ULB), TRUSSART N. (ULB), 'GMOs in the (European Regulations) field'

DEBEER D. (VUB), DENYS S. (ULB), GREGOIRE J.-Cl. (ULB), STENGERS I. (ULB), TRUSSART N. (ULB), 'GMOs as an event: beyond opposition between novelty and continuity'

DEBEER D. (VUB), DENYS S. (ULB), GREGOIRE J.-Cl. (ULB), STENGERS I. (ULB), TRUSSART N. (ULB), 'Will the GMO's problem achieve its black boxing?'

DENYS S.(ULB), DE WAELE D. (UG), TRUSSART N. (ULB), "Beyond educational purpose towards a participative production of 'public proof'. 'Public dossier' in Belgian procedure for deliberative releases of GMO's, as a set of new constraints for notifiers, public servants of biosafety institutions and the public'

DE SUTTER (L.) and FRANÇOIS (K.), "When Mathematics Become Political : Representation and the Logical Truth", to be published in *Philosophica*.

III.C. TO BE PUBLISHED

BRISON, F. & SCHREURS, W., "Alai Questionnaire : Protection, exercise and enforcement of performers' rights after the 1996 and 2000 WIPO Diplomatic Conferences" *National report Belgium, prepared for the ALAI Conference 2003 (Association littéraire et artistique internationale)*, 10p.

COMIJN H. and VAN KERKHOVE B., 'Internal and external philosophy of science'. The paper was presented at the workshop 'Mathematics as/in Culture', at the Free University Brussels. It will be published in the international journal '*Philosophica*' (published at Ghent University).

D. DE BEER, "Le Sida au coeur de la mondialisation", *La revue Nouvelle*, forthcoming (also posted on *imbroglio.be* in the *Tree of questions*).

D. DE BEER, "Les OGM, le militant et le juge: y a-t-il quelqu'un? - De la controverse à la transgression: rupture du dialogue ou processus d'assomption?" draft-article about the first Belgian case (Namur) against anti-GMO activists, (15 p.)

DE HERT, P. & SCHREURS, W., "De bescherming van persoonsgegevens op het Internet: nuttige verduidelijking door de rechtspraak", noot bij H.v.J. 6 november 2003 (Arrest Lindqvist, prejudiciële vraag, zaak C-101/01, verkort weergegeven door dezelfde auteurs) [Publication expected for the following issue of "Auteurs & Media 2004/2"]

DE HERT, P. & SCHREURS, W.? "The right to anonymity in Belgium" [Publication foreseen by september 2004]

DE SUTTER L., 'How to Get Rid of Legal Theory?', XXI^o IVR World Congress, Lund (Sweden), 14th of August 2003, to be published in the proceedings of the congress (in *Archiv für Rechts- und Sozialphilosophie*).

HILDEBRANDT M., (2004) *Causaliteit in rechte. Case-studies bij Meesterlijk recht* (Causality in court), Den Haag: Boom Juridische Uitgevers 2004

HILDEBRANDT M., (2004) Wetenschap in rechte (Science in court), *Tijdschrift voor de rechterlijke macht* 2004-4

HILDEBRANDT M., 'Jurist en Expert' (Lawyer and expert), proceedings *Conference on Legal Argumentation* of June 2003

HILDEBRANDT M., 'Communicative Punishment', in: Congresbundel *Aquinas Conference on Restorative Justice*, London: Hart 2004

DE HERT, P. & GUTWIRTH, S. (2004), "Rawls' political conception of rights and liberties. An unliberal but pragmatic approach to the problems of harmonisation and globalisation" in VAN HOECKE M. (Ed.) *Epistemology and Methodology of Comparative Law*, Hart Publ., Oxford/Portland, 2004, 317-357

DE HERT P. & S. GUTWIRTH (2004), "Veiligheid en grondrechten. Het belang van een evenwichtige privacy-politiek" (27 p.) to be published in E. Muller, *Bundel Veiligheid*, 2004

DE SUTTER, L. & GUTWIRTH, S., "Droit et cosmopolitique. Notes sur la contribution de Bruno Latour à la pensée du droit", Review essay about Latours *La fabrique du droit*, 31 p., 2003, to be published, submitted to *Droit et société*.

SNACKEN S. & GUTWIRTH S. (2004), "Editoriaal : over mensen, gedetineerde mensen en politieke verantwoordelijkheid in een democratische rechtsstaat", *Panopticon*, 2004/1, to be published

TRUSSART N., 'Dispositif foucauldien et mot d'ordre deleuzien : liaison et déliaison autour de la notion de gène', en préparation.

TRUSSART N., 'Ontologie de l'actualité dans la philosophie de Michel Foucault', en préparation.

STENGERS, I. 'La proposition cosmopolitique' (posted on *imbroglio.be* in the *Tree of questions*)

III.D. OVERVIEW OF PUBLICATIONS ON *IMBROGLIO.BE* IN THE *TREE OF QUESTIONS*

Topic:n° 65: Can we imagine the possibility of different relations between sciences and their environment ?

- ART.n° 101: Thinking sciences from their middle: by Isabelle Stengers : WP2 (30/03/2003)
1 comment

- ART.n° 132: On Truth Effect and Science by Marc Mormont: by François Melard : WP5 (07/02/2003)
2 comments

Topic:n° 66: Progress is clearly associated with experimental sciences. Can it be associated with science in general, or the scientific method as such ?

- ART.n° 102: Scientific progress' Eighteenth of Brumaire: by Isabelle Stengers : WP2 (30/03/2003)
no comments

Topic:n° 67: How to understand the kind of power associated with genes by contemporary biology ?

- ART.n° 103: For a speculative approach of biological evolution: by Isabelle Stengers : WP2 (30/03/2003)
1 comment

Topic:n° 76: How does the law understand and construct the power it associates with genes?

ART.n° 125: Expert, citizen, lawyer and gene (in court): by Mireille Hildebrandt : WP6 (01/06/2003)
no comments

Topic:n° 77: (How) can and should the law deal with the controversial nature of scientific expertise in court?:

-ART.n° 126: Expert, citizen and lawyer: (how) do they understand each other?: by Mireille Hildebrandt : WP6 : (01/06/2003)
1 comment

- ART.n° 138: Science in court: by Mireille Hildebrandt : WP6 (03/11/ 2003)
no comments

Topic:n° 78: What's a correlated human ?

- ART.n° 127: What's a correlated human ?: by Serge Gutwirth : WP8 (09/06/2003)
3 comments

Topic:n° 79: How could we conceptualise law in constitutionally organised democratic states?

- ART.n° 128: human rights as preconditions for intercultural society: by Mireille Hildebrandt : WP8 (11/06/2003)

1 comment

Topic:n° 83: How could we conceptualise law in constitutionally organised democratic state, when sciences are at stake ?

- ART.n° 146: From Representative Democracy to Technical Democracy: A Lawyer's Insights by Laurent Desutter : WP6 (19/02/2004)
no comments

Topic:n° 80: What could be the loyalties of public sciences and scientists ?

- ART.n° 129: The Chemist Engineer and their Instruments : The Case of the Polarimetric Analysis in the Sugar Industry: by François Melard : WP4 (24/06/2003)
no comments

- ART.n° 130: De scheikundige ingenieurs en hun instrumenten : De oprichting van de "Association Belge des Chimistes" eind 19de eeuw.: by François Melard : WP4 (24/06/2003)
no comments

Topic:n° 81: What lawyers shouldn't do ?

- ART.n° 131: A short repertory of doubt and scruples generated by researching in the legal field.: by Laurent Desutter : WP7 (30/06/2003)
2 comments

Topic:n° 82: What are lawyers actually doing ?

- ART.n° 139: Law and cosmopolitics. Reflexions about Latours 'La fabrique du droit': by Serge Gutwirth : WP7 (12/12/2003)
no comments

- ART.n° 141: What is Latour doing ?: by Isabelle Stengers : WP1 (18/12/2003)
no comments

- ART.n° 142: What have we been doing ?: by Serge Gutwirth : WP7 (17/01/2004)
1 comment

- ART.n° 143: law as practice, law as discipline and law as profession: by Mireille Hildebrandt : WP6 : (24/01/2004)
3 comments

- ART.n° 144: What have I been doing ? by Bruno Latour: WP7 (06/02/2004)
no comments

- ART.n° 148: Comments on Serge's thoughts after our February 5 meeting by Bruno Latour WP7 (25/02/2004)
2 comments

Topic:n° 84: How to define cosmopolitics ?

- ART.n° 149: The "cosmopolitics" proposition: by Isabelle Stengers : WP1 (03/03/2004)
1 comment

|

Annex I

Overview of the themes available and chosen in the project of wp 1, see also www.imbrogl.io.be/controverses/:

First series of seminars (14 October to 9 December 2003)

Proposed themes (non exhaustive list : the students could propose a topic of their own)

The theme that were selected are marked with an asterisk

1. Sterile male releases (trypanosomiasis)*

Les trypanosomiasés (affections parasitaires) animales et humaines causent des dommages considérables en Afrique, soit d'un point de vue économique via des réductions de la productivité du bétail, soit du point de vue de la mortalité humaine via la maladie du sommeil. Depuis un certain nombre d'années, l'Agence Internationale de l'Energie Atomique (AIEA) appuie le développement de la technique de lâchers de glossines (mouche tsé-tsé) mâles stériles pour enrayer la multiplication de cet insecte, vecteur de la maladie du sommeil. Malgré les inconvénients de cette technique, dont le coût considérable de sa mise en œuvre, elle continue à être présentée comme une solution d'avenir.

2. Hydraulic macro-works /Water transfer*

On a beaucoup décrit les dégâts qui peuvent être associés aux grands barrages, mais aujourd'hui, c'est la possibilité de transférer de l'eau, entre fleuves ou entre nappes aquifères, qui est en question (voir *The new Scientist* vol 178 issue 2398 - 07 June 2003, page 30). De tels méga-travaux sont en projet en Chine, en Afrique, en Australie, ou en Inde, mais également en Europe. On suggère ici d'explorer deux cas, l'un belge, la transhennuyère entre deux nappes aquifères (voir texte de Pierre Cornut : 'Gestion politique de la surexploitation d'une ressource naturelle internationale : le cas de la nappe aquifère de Tournai' 2000) et le Plan hydrologique espagnol (The Spanish National Hydrological Plan) discuté à la Commission européenne. Dans le cadre de ce dernier projet, un premier transfert d'eau a déjà été réalisé, entre Tage (Tagus) et Segura. Les conséquences écologiques, sociales et économiques sont décrites comme négatives, même par quelqu'un comme Asit Biswas, un consultant international en affaires hydrauliques, qui a soutenu d'autres plans de cette ampleur. Pourtant, de nouveaux projets (dont le transfert de l'Ebre (Ebro) vers Barcelone) sont en discussion à la Commission européenne, appelée à co-financer ces projets, et notamment à la DG Environnement (direction Catherine Day). En effet, il y a infraction potentielle à une série de directives européennes. L'un des principaux opposants est Pedro Arrojo-Agudo, un économiste environnementaliste de l'Université de Saragossa.

3. Atrazine in weed control

Commercialisée par Syngenta, l'atrazine est depuis plus de 40 ans un produit désherbant mondialement utilisé dans les champs de maïs. Le 16 avril 2002, la revue *Proceedings of the National Academy of Sciences* publie les résultats de recherches menées par l'équipe de Tyrone Hayes à Berkeley : des effets d'hermaphrodisme sont constatés sur des grenouilles mâles ayant été élevées dans de l'eau contenant de l'atrazine. Cet article fait couler beaucoup d'encre. D'une part, Hayes a travaillé pour Syngenta. D'autre part, cette étude survient au moment où l'autorisation de commercialisation de l'atrazine est ré-évaluée par l'E.P.A. (Environmental Protection Agency), aux U.S.A., ainsi que par le "Comité phytosanitaire permanent" de l'Union Européenne (voir : Dalton R. *Nature* 416. 665 (2002).). Aujourd'hui,

le nouveau "Comité permanent de la chaîne alimentaire et de la santé animale" de l'Union Européenne (reprenant entre autre les compétences du défunt "Comité phytosanitaire permanent") vient d'interdire la commercialisation de ce produit (voir, par exemple, le communiqué de presse de Syngenta). Au-delà des problèmes environnementaux causés par l'utilisation de l'atrazine, se pose la question des possibilités de son remplacement.

4. Impacts of GMOs on the environment: the "Farm-Scale Evaluations" (FSEs) in Britain

Le 16 octobre 2003, la Royal Society publiera les résultats du programme de recherche mené pendant trois ans en Grande-Bretagne, the Farm-Scale Evaluations (FSEs). Cette étude -portant sur des plants de maïs, de colza et de betterave sucrière- compare les effets produits sur la biodiversité par la culture de variétés traditionnelles traitées par herbicides, et par celle de variétés génétiquement modifiées afin d'être rendues tolérantes aux herbicides. Les résultats de ce rapport sont attendus avec impatience. D'abord, en raison du caractère inédit de l'expérimentation: échelle, durée, conditions de réalisation, choix méthodologiques (voir *Journal of Applied Ecology*, février 2003), l'initiative politique qui lui a donné lieu. Mais aussi en raison des polémiques qui entourent déjà ce rapport: le 2 octobre 2003, le quotidien *The Guardian* affirmait que ces résultats étaient défavorables au lobby en faveur des OGMs; la Royal Society attaquait aussitôt *The Guardian* pour spéculation; le 12 octobre le quotidien *The Independent* publiait un article où Michael Meacher, Ministre de l'environnement en 1999, affirmait que les tests sont rendus caducs par la nouvelle interdiction de l'Union Européenne frappant l'atrazine.

5. Whales hunting

Un moratoire international empêche la chasse commerciale à la baleine. L'Islande et le Japon pratiquent dès lors ce qu'ils appellent une pêche scientifique, dénoncée par les environnementalistes. Des articles scientifiques tendent à prouver que le moratoire est justifié et d'autres qu'il ne l'est pas. La controverse est importante et offre de multiples entrées. Ainsi, lors de la conférence de Berlin, en juin 2003, certains participants auraient voulu faire remplacer le concept d'interdiction de la pêche par celui de conservation de l'espèce. Quels seraient les enjeux d'une telle modification ? Un autre aspect peut être exploré : celui de la revendication de « peuples autochtones » à maintenir une pratique « traditionnelle ». En particulier le cas du peuple amérindien, les Makah, a suscité beaucoup de discussions, dans les sens les plus divers. Si les espèces menacées doivent être protégées, qu'en est-il des pratiques traditionnelles ? Deux grandes causes contemporaines se heurtent dans cette controverse, celle des baleines et celle du droit des peuples autochtones.

6. Foot and mouth disease: crisis management*

Lors de l'épizootie de fièvre aphteuse, qui a touché principalement la Grande-Bretagne en 2001, la technique de contrôle de l'épidémie a consisté à abattre tout troupeau où un cas positif aurait été détecté, mais aussi à abattre préventivement tous les troupeaux présents dans un rayon de 3 km d'une exploitation infectée. Alors que l'opinion publique s'est émue de ces abattages massifs, le 12 septembre 2002, l'UE s'est prononcé en faveur d'une procédure de vaccination d'urgence en cas de crise de fièvre aphteuse (voir par exemple, dépêche de l'AFP du 13/09/2002).

7. *Diabrotica virgifera*: an invasive new pest*

Selon l'EPPO (European and Mediterranean Plant Protection Organisation), la chrysomèle du maïs (*Diabrotica virgifera virgifera* ou Western Corn Rootworm) s'est introduite dès 1990 en Europe, à partir de la Serbie, et semble se propager à partir d'aéroports. Ce ravageur risque de s'établir en Europe dans toutes les cultures de maïs. Même si un nouveau maïs transgénique est efficace contre l'insecte, la F.A.O. (Food and Agriculture Organisation) a préféré opter, le

16 juillet 2003, pour un programme de Gestion Intégrée des Ravageurs des plantes (IPM en Anglais) dont sept pays d'Europe centrale et orientale vont être bénéficiaires.

8. Bees and Gaucho*

Le 18 septembre 2003, le "Comité Scientifique et Technique" de la Direction Générale de l'Alimentation française (D.G.AI) a rendu son rapport final sur l'Imidaclopride, un herbicide systémique utilisé en enrobage de semences et commercialisé par Bayer sous le nom de Gaucho. Ce rapport, salué avec enthousiasme par l'Union Nationale de l'Apiculture Française, intervient à un moment opportun pour soutenir diverses instructions pénales mettant en cause la légitimité du "Comité d'homologation des produits antiparasitaires à usage agricole" en France. En effet, dans son "Complément Web" numéro 347, La Recherche mettait déjà en avant certains des dysfonctionnements du processus d'homologation des produits systémiques.

Chosen themes

team1: Hydraulic macro-works /Water transfer
 team2: Sterile male releases (trypanosomiasis)
 team3: *Diabrotica virgifera*: an invasive new pest
 team4: Bees and Gaucho
 team5: Foot and mouth disease: crisis management

Second series of seminars (12 February to 1st April 2004)

Proposed themes (non exhaustive list : the students could propose a topic of their own)

The theme that were selected are marked with an asterisk

1. Banning atrazine raises the problem of its replacement*

L'atrazine est un herbicide utilisé régulièrement en agriculture depuis plus de quarante ans. Le 16 avril 2002, la revue *Proceedings of the National Academy of Sciences* publie les résultats de recherches menées par l'équipe de Tyrone Hayes à Berkeley : des effets d'hermaphrodisme sont constatés sur des grenouilles mâles ayant été élevées dans de l'eau contenant de l'atrazine. Cet article fait couler beaucoup d'encre. D'une part, Hayes a travaillé pour Syngenta, l'une des principales sociétés produisant l'atrazine. D'autre part, cette étude survient au moment où l'autorisation de commercialisation de l'atrazine est ré-évaluée par l'EPA (Environmental Protection Agency), aux Etats-Unis, ainsi que par le Comité phytosanitaire permanent de l'Union Européenne [voir : Dalton R. *Nature* 416. 665 (2002)]. Aujourd'hui, le nouveau Comité permanent de la chaîne alimentaire et de la santé animale de l'Union Européenne (reprenant les compétences du défunt Comité phytosanitaire permanent) vient d'interdire la commercialisation de ce produit [voir le communiqué de presse de Syngenta]. Aux problèmes environnementaux causés par l'utilisation de l'atrazine, est liée la question des possibilités de son remplacement.

2. Impacts of GMOs on the environment: the "Farm-Scale Evaluations" (FSEs) in Britain

*Le 16 octobre 2003, la Royal Society a publié les résultats du programme de recherche mené pendant trois ans en Grande-Bretagne, les Farm-Scale Evaluations (FSEs). Cette étude - portant sur des plants de maïs, de colza et de betterave sucrière - compare les effets produits sur la biodiversité par la culture de variétés conventionnelles traitées par herbicides, et par celle de variétés génétiquement modifiées afin d'être rendues tolérantes aux herbicides. Les résultats étaient particulièrement attendus en raison du caractère inédit de l'expérimentation - échelle, durée, conditions de réalisation, choix méthodologiques [voir *Journal of Applied**

Ecology, février 2003] - et de l'initiative politique qui lui a donné lieu. Ils indiquent une diminution de la biodiversité végétale et des invertébrés dans le cas des betteraves et du colza. Lorsque mises en oeuvre, les FSEs ont été mises en cause par les détracteurs des OGM. Après l'annonce des résultats, ce sont cette fois leurs partisans qui interrogent publiquement les protocoles utilisés, la pertinence de la question abordée et l'interprétation à donner aux résultats [voir Nature Biotechnology. December 2003. Volume 21. Number 12. ou encore New Scientist. 2003. October 25.] Sont au coeur des débats, les protocoles de mise en culture, le concept de mitigation et les mesures de suivi proposés pour une mise en culture. En ce début d'année 2004, Le Conseil de Biosécurité a pourtant utilisé les résultats des FSEs pour justifier l'avis négatif émis par la Belgique pour la commercialisation du colza de Bayer.

3. Whale hunting. Which is the threatened species ? *

Un moratoire international empêche la chasse commerciale à la baleine (whales hunting). L'Islande et le Japon pratiquent dès lors ce qu'ils appellent une pêche scientifique, dénoncée par les environnementalistes. Des articles scientifiques tendent à prouver que le moratoire est justifié et d'autres qu'il ne l'est pas. La controverse est importante et offre de multiples entrées. Ainsi, lors de la Conférence de Berlin, en juin 2003, certains participants auraient voulu faire remplacer le concept d'interdiction de la pêche par celui de conservation de l'espèce. L'enjeu porte sur la possible protection de pratiques traditionnelles de pêche à la baleine, telles qu'elles sont revendiquées par des peuples autochtones. En particulier le cas du peuple amérindien, les Makah, a suscité beaucoup de discussions. Est-il possible de protéger des espèces menacées, tant animales que humaines ?

4. Conservation of phytogenetic resources (INIBAP). Between banana and banana*

Le 18 janvier 2003, Emile Frison, directeur de l'INIBAP, publie dans le New Scientist un article où il met en scène la disparition de la banane sous les coups d'une maladie fongique, la cercosporiose noire ou Black Sigatoka. La solution : l'« immuniser » contre ce champignon ou tout autre maladie ou ravageur, par modification génétique. Depuis le milieu des années 80, la conservation et le transfert international des ressources génétiques des bananes du genre *Musa* constituent l'activité principale de l'International Network for the Improvement of Banana and Plantain (INIBAP). En 1985, ce réseau établit, à la K.U. de Leuven, le centre de transit de la plus importante collection mondiale de matériel génétique de la banane *Musa*. Les enjeux sont de taille. La banane est la quatrième source d'alimentation mondiale, mais sa culture est affectée par les maladies et divers ravageurs. Le projet de l'INIBAP, doit aussi bénéficier aux marchés de la banane dessert Cavendish, produit d'exportation. Pourtant de nombreuses critiques sont adressées au CGIAR, le Consultative Group on International Agricultural Research, qui coordonne la recherche agricole internationale à des fins de développement, et dans lequel l'INIBAP est partie prenante : par exemple, l'orientation des programmes de recherche en faveur des biotechnologies. Voir à ce sujet Plate-Forme Souveraineté Alimentaire (PFSA), avis de 1997 (1997 AO1F) et 2001 (2001 1A12F) du Conseil Fédéral de Développement Durable (CFDD). Précisément divers problèmes liés au projet de l'INIBAP sont soulevés : les conséquences de l'usage des biotechnologies agricoles pour les populations des pays du Sud, les conditions de prélèvement des ressources génétiques auprès des populations indigènes (biopirateries), ainsi que la répartition des bénéfices issus des collections formées au sein de l'INIBAP.

5. Biopharming (*Meristem Therapeutics*) and gastric lipase*

De nombreux essais en plein champ de plantes transgéniques (maïs, soja, riz ou tabac) produisant des molécules à usage pharmaceutique ou industriel (hormones de croissance, coagulants sanguins, molécules contraceptives, enzymes ou vaccins) sont réalisés depuis 1991

aux Etats-Unis. D'ici 2010, les surfaces consacrées à cette technologie, le biofarming, pourraient représenter 10% de la surface cultivée de maïs aux Etats-Unis. Ceci sans compter les plantes modifiées pour produire des matières premières à usage industriel (biocarburants, bio-plastiques, huiles.) En France, la société *Meristem Therapeutics* développe une variété de maïs modifiée pour produire de la lipase gastrique, protéine destinée au traitement des personnes atteintes de mucoviscidose. Le 11 août 2001, plusieurs champs d'essais de ce maïs sont détruits en France par un groupe appelé *Les limes à grains*. Cette intervention provoque une importante levée de bouclier. Il faut "refuser l'obscurantisme" est-il écrit dans le Monde du 16 août 2001. Ou encore, dans un article du Monde du 25 août 2001, que les opposants aux OGM s'en prennent à une parcelle d'OGM médicaux montre qu' "il n'y a plus de limites !" Lorsqu'en septembre 2003, un nouvel essai de *Meristem* est détruit, les familles des malades et l'Etat français expriment leur sentiment de révolte, peut-on lire dans le Figaro du 3 septembre 2003. Pourtant, le 12 novembre 2002, le ministère de l'Agriculture américain avait révélé la contamination de soja destiné à la consommation humaine par du maïs génétiquement modifié par la firme *ProdiGene* en vue de produire un vaccin contre une maladie porcine. Ce cas illustre la difficulté de confiner les cultures transgéniques, qu'elles soient ou non développées à visée thérapeutique. Cet argument est repris dans un rapport publié par les *Amis de la Terre des Landes*, OGM médicaux en plein champ : faux espoirs et vrais dangers, rapport nourri par l'expérience américaine en matière de biofarming.

6. Wind turbines on the Condroz plateau*

Actuellement, la part d'électricité provenant de sources d'énergie renouvelable est, en Belgique, de 1,1%. Dans le cadre du suivi des accords de Rio (1992) et de Kyoto (1995), la directive européenne 2001/77/CE fixe comme objectif indicatif à ses Etats membres de parvenir à produire d'ici 2010, 6% de leur 'électricité à partir de sources d'énergie renouvelable. La Wallonie, pour sa part, s'est fixée d'atteindre une production de 10% d'énergie verte. Pour atteindre cet objectif, le Parlement Wallon a adopté au printemps 2001 un décret sur l'organisation du marché de l'électricité organisant le mécanisme dit des « certificats verts ». Par ce système, la Région Wallonne soutient la production d'électricité verte en stimulant économiquement les fournisseurs à distribuer un certain pourcentage de l'électricité provenant de ces sources d'énergie renouvelable. La Région Wallonne promeut ainsi la diversification de ses sources d'approvisionnement, mais également de son développement économique, en utilisant ses propres ressources énergétiques, générées par l'air (éolienne), la terre (biomasse) et le soleil. Dans ce cadre, plusieurs projets de champs d'éoliennes sont développés en Wallonie. En cohérence avec les volontés internationales de diminuer les émissions de gaz à effet de serre, dans un souci général de protection de l'environnement, ces projets sont pourtant contestés au nom également de l'environnement, sonore ou paysager des riverains. Ainsi, le projet de 61 éoliennes présenté par la société Molinee Energie SA (MESA) sur le plateau du Condroz (Dinant-Florenne) est remis en cause par l'Association pour la défense des sites et des vallées du Namurois (ADSVN).

7. Certification for a sustainable forest management. Criteria identical for all ?

En 1992, lors de la Conférence des Nations Unies sur l'environnement et le développement (CNUED), Conférence dite de Rio, une déclaration de principes sur la gestion, la conservation et le développement durable des forêts fût adoptée par les divers délégués des pays participants (les dits « Principes forestiers » et le chapitre 11 du Programme d'Action 21 « Lutte contre la déforestation »). La mise à mal des forêts y est reconnue. Leur rôle important comme écosystème y est souligné. Leur nécessaire gestion durable est dès lors soutenue. Ce concept de développement durable affirme que le développement économique et social doit passer obligatoirement et de manière concrète par la protection de l'environnement. Diverses actions s'en suivirent. Notamment, divers systèmes de certification

accordée aux bois produits et exploités dans des conditions de gestion durable des forêts. Ainsi, un grand nombre de filières de certification se sont développées, indépendamment les unes des autres, selon les sensibilités, les intérêts ou les traditions de leurs promoteurs. En ce qui nous concerne, deux systèmes de certification se disputent la forêt wallonne. Ce sont le FSC (Forest Stewardship Council), seule certification forestière reconnue par les ONG, et le PEFC (Pan European Forest Certification). Différents problèmes sont posés par cette multiplication des éco-certifications : les principes sous-jacents inspirant ces modes de certification, leurs effets concrètement produits sur le développement durable, confusion des consommateurs, difficulté de choix pour les responsables d'entreprise, risque de discrédit de l'éco-certification en général, les sphères nationales ou internationales des intérêts défendus dans ces chartes respectives. Une reconnaissance mutuelle des différents labels est dès lors envisagée. Mais elle passe par un accord sur les conditions minimales offertes par cette certification forestière en vue d'assurer la gestion et le développement durable de nos forêts, d'ici et d'ailleurs. Une analyse comparative semble indispensable.

8. Forêt de Soignes and citizen partnership. How many are we ?

La Forêt de Soignes est une futaie régulière de hêtre (forêt cathédrale) qui comprend cinq réserves naturelles. On y trouve 384 espèces de plantes, 39 espèces de mammifères et 134 espèces d'oiseaux. Elle est depuis longtemps une importante exploitation forestière, mais outre cette fonction économique, elle remplit également une fonction écologique et une fonction sociale. Ces dernières années, ses aspects récréatifs, paysagers et environnementaux tendent à être davantage valorisés. La forêt est progressivement intégrée à un tissu urbain et routier de plus en plus dense qui provoque des conflits de « voisinages ». Elle constitue un lieu privilégié d'observation des attentes contradictoires investies dans la forêt (loisir, éducation, gestion du milieu ou des exploitations, biodiversité). Comment permette la cohabitation entre les différents utilisateurs de la forêt : les promeneurs, les cyclistes, les écosystèmes, les cavaliers, les naturalistes, les riverains et les exploitants forestiers? Depuis 2002, un large débat est mené dans le cadre de l'élaboration du Plan gestion de la Forêt de Soignes, proposé par l'Institut bruxellois pour la Gestion de l'Environnement (IBGE), avec notamment la mise en place d'une "Plate-forme participative de la Forêt de Soignes". Cet organe de concertation est mis en oeuvre en collaboration avec le WWF-Belgium, la Fondation pour les Générations Futures (FGF) et la Fondation Roi Baudouin (FRB). Ce projet vise à aider le gestionnaire forestier à mettre en place une politique où chacune des parties concernées peut se retrouver. L'expérience porte tant sur les possibles modes de gestion durable de la forêt de Soignes, et tant sur les possibles modes de participation des acteurs qui s'y intéressent volontairement.

9. Pesticides and pesticide uses. Southern danger vs. Northern danger ? *

En 1962, le livre de Rachel Carson, «The Silent Spring», dénonce les conséquences négatives provoquées par un usage immodéré des pesticides. Certains sont progressivement interdits en raison de leur écotoxicologie, dont le DDT (dichloro-diphényl-trichloréthane) dans les années '70. Différentes mesures sont successivement prises en vue d'une réglementation internationale. En 1987, les Directives de Londres sont adoptées par le Programme des Nations Unies pour l'Environnement (PNUED). En 1989, une procédure facultative dite d'Information et de consentement préalable (PIC) est établie. Pourtant en 1996, la Food and Agriculture Organization (FAO), Organisation des Nations Unies pour l'alimentation et l'agriculture, met en garde la communauté internationale. De grandes quantités de pesticides périmés sont gardées dans plusieurs pays en voie de développement (Afrique, Asie et Europe orientale) et menacent gravement l'environnement et la santé publique. Pointée du doigt, la communauté internationale (pays donateurs, organismes d'aide, fabricants, et gouvernements bénéficiaires) est appelée à aider ces pays à éliminer ces produits toxiques et à éviter qu'ils

ne continuent de s'accumuler. L'existence de ces stocks impressionnants de produits toxiques périmés impose un constat : les pays exportateurs déclassent leurs produits toxiques alors que les pays importateurs les stockent. Mais elle pose aussi l'épineux problème des précautions d'utilisation très sophistiquées que ces produits exigent, et de la spécificité des milieux où elles auront à être mises en oeuvre. L'efficacité d'une technologie à haut risque peut-elle être évaluée sans tenir compte des savoirs et savoirs-faire que nécessite son bon usage? Sans aller jusqu'à évaluer de l'efficacité des produits commercialisés, la Convention de Rotterdam, adoptée le 10 septembre 1998, prend très au sérieux ces savoirs nécessaires au bon usage des produits toxiques, en rendant la procédure PIC juridiquement contraignante. Lorsqu'en 2001, la FAO met en place un Code international de conduite, concrétisé dans la Convention de Stockholm sur les polluants organiques persistants (POP), le polémique DDT revient au centre des débats. Cette convention est susceptible d'aboutir à son interdiction mondiale, dès que 50 pays au moins auront ratifié la convention.

10. Segmented market for the sugar trade and production

Le sucre est produit par plus de 150 pays différents. Sa filière internationale est fortement segmentarisée. Par exemple, la production de sucre est subventionnée et protégée par un système de quotas au sein de l'Union Européenne. Il est aujourd'hui remis en cause par la future réforme de la Politique Agricole commune (PAC) mise en oeuvre suite à l'élargissement de l'Union Européenne. Mais en septembre 2002, le Brésil, l'Australie et la Thaïlande portent plainte devant l'Organisation mondiale du commerce (OMC) contre ces subventions accordées aux planteurs européens. Un autre exemple est le régime préférentiel accordé aux pays ACP (pays issus d'Afrique, des Caraïbes et du Pacifique) en vertu des accords de Cotonou. Dernier cas, la coexistence de deux matières premières, la canne à sucre pour deux tiers de la production et la betterave pour le tiers restant, pour produire le même produit final, le sucre, entraîne comme corollaire la concurrence entre pays en développement et les économies industrialisées. La production belge subirait-elle cette concurrence, ou tout autre impact de la segmentarisation? En effet, en Belgique, d'importantes restructurations industrielles ont lieu. En septembre 2003, de trois groupes sucriers familiaux Cosucra – Groupe Warcoing, Groupe Sucrier et Couplet annoncent leur fusion dans une nouvelle société Iscal Sugar. Peu de temps après, le groupe annonce la fermeture de la sucrerie de Frasnès (70 emplois). Quelques semaines plus tard, le leader incontesté du marché, la Raffinerie tirlémontoise engage une restructuration qui touche 130 emplois et annonce la fermeture d'une sucrerie à Genappe.

11. Silage maïze and the reforms in the Common Agricultural Policy

Le maïs ensilage est perçu et utilisé comme l'aliment idéal pour l'élevage intensif. Pourtant, il présente aussi de nombreux inconvénients. Le remplacement des pâturages herbacés par des champs de maïs laisse le sol nu en hiver et nécessite plus d'intrants et d'eau. Et, aliment presque exclusivement énergétique, le maïs ensilage nécessite de donner au bétail un complément de protéines : le soja. Or le volet oléagineux de l'accord commercial de Blair-House interdit à l'Europe de produire plus de 63 % des ses besoins en huiles végétales et plus 22 % de ses besoins en protéines végétales. De plus, la prime européenne accordée aux agriculteurs pour la culture de maïs fourrager est bien plus intéressante que celle donnée pour celle de l'herbe. Les prochaines réformes de la Politique agricole commune (PAC) risquent encore de modifier la donne. Aux aides directes liées à la production actuelle de l'agriculteur, devrait se substituer une aide annuelle en fonction de sa production antérieure, indépendamment de sa culture présente, de son rendement ou de la taille de son exploitation. Le maïs ensilage nourrira-t-il encore aussi bien ?

Chosen themes

Team06: Banning atrazine raises the problem of its replacement

Team07: Conservation of phylogenetic resources (INIBAP). Between banana and banana

Team08: Biopharming (*Meristem Therapeutics*) and gastric lipase

Team09: Wind turbines on the Condros plateau

Team10: Whale hunting. Which is the threatened species ?

Team11: Pesticides and pesticide uses. Southern danger vs. Northern danger ?

Annex II:

Agenda's, minutes of IAP plenary networkmeetings in 2003:

- Minutes of the meeting of February 5th 2003
- Agenda of the meeting of May 23rd 2003
- Agenda of the meeting of December 17th 2003

PÔLES D'ATTRACTION INTERUNIVERSITAIRES
INTERUNIVERSITAIRE ATTRACTIE POLEN
INTERUNIVERSITY ATTRACTION POLES

PHASE V/16

'Les loyautés du savoir'
'The loyalties of knowledge'
'De verbondenheden van het weten'

Network seminar

WEDNESDAY, FEBRUARY 5th 2003, UNIVERSITE LIBRE DE
BRUXELLES

Report of the meeting

Present:

Isabelle Stengers, Jean-Claude Grégoire, Edwin Zacaï, Nathalie Trussard, Jean-François De Sadelaer, Sebastien Denis (ULB), Serge Gutwirth, Laurent De Sutter, Daniel De Beer, Nicolas De Sadeleer, Mireille Hildebrandt, Wim Schreurs, Jean-Paul van Bendegem, Hans Comijn, Karin François, (VUB), Dani de Waele, Valérie Smet (UG), François Mélard (FUL)

Opening:

Serge Gutwirth opened with an interesting citation of l'Oreal:
2700 chercheurs inventent la beauté de demain

Discussion of Isabelle Stengers' 'Cosmopolitiques'

During the morning-session Isabelle Stengers gave a reply to questions from the team of the VUB, concerning the transversal meaning of several themes of her *Cosmopolitiques* for the project. In the program this was formulated as the question:

How to link Isabelle's work (especially political and institutional aspects, concept of diplomacy, ...) to law and to the democratic, constitutional state, more specifically in terms of the two transversal themes, correlated man and food security.

Jean-Paul Van Bendegem introduced this part of the seminar emphasizing that the purpose of this exercise is not to discuss or criticize the texts, but to find a common language and locate the relevance of the special vocabularies that are introduced in the *Cosmopolitiques*.

Isabelle Stengers again emphasized that she was not going to 'present' her *Cosmopolitiques*, but to respond to questions and to identify the feeling of it.

Cosmopolitiques hope for a speculative description of practices, using open words (generic instead of general), in a way that evokes an appetite and produces an interest for possibility instead of plausibility. If the use of generic terms succeeds this will lead to pay attention to the different practices in terms of their divergences, not their contradictions [the terminology general/generic is inspired by Whitehead/Leibniz and stems originally from mathematics]

The divergences are not arbitrary: they are related to the *distinction* of practices and give importance to the problem of their boundaries. Importance is a generic term: its meaning is open and distinct in relation to the context of each different practice. Boundaries or definitions of diverse practices are, however, not understood to cut, but to organise. Boundaries decide what is important and not important within a specific practice.

The term plausibility is connected with prediction. Of course prediction can be based on prevailing habits (people are like that, for example they will object in terms of NIMBY, Not in my backyard !). To resist this kind of plausibility is not a matter of escaping these habits, but raises the question how to modify a habit. The speculative interest is a pragmatic one because it is about the kind of situation, of agency which could make possible some change of habits. Plausibility comes close to a determinist conception of practices, while the search for an opening (for possibility) is closer to an ethical conception of practices: it implies a strong but always uncertain, that is speculative, distinction between what a practice indeed needs and how it formulates what it needs.

The term 'contraintes' refers to this aspect of practices and is related to the matter of plausibility/possibility. 'Contrainte' is again a generic term. The important point with constraints is that they demand being respected but do not define how they should be respected, that is the meaning they will take. This meaning is thus linked with the question of habit and the (speculative) possibility

of change of habit, while if a constraint and its meaning are conflated, we would define a practice through an identity.

The term 'diplomacy' is used here for a situation in which the plausible outcome of a situation is war (which presumes some equality between the adversaries). The diplomat is looking beyond the plausibility for a possibility of peace as related to invention, and as such should not be confused with pacification. Peace depends on the possibility for modified meaning associated to 'contraintes', making possible articulation when opposition did appear as the only logical outcome.

The term 'obligation' refers to the loyalties of a practice, to the specific way in which a particular practice organizes the non-equivalence of different ways of doing things. Asking practitioners to betray their obligations is something to be avoided. It means war or destruction of their practice, cynism and demoralization. The idea of an ecology of practices is that you cannot enter in a free way into a practice. However you may be able to change habits through an other set of constraints, called "demands" (exigences) : those define how a practice defines its relation with what it depend on in order to fulfill its obligations.

For instance scientists ask that society respects their autonomy. They usually formulate it as the demand 'give us the money and don't tell us what to do'. And if you try to tell it, they may be ready to cheat (re etiquette) because they feel their demand is legitimate, and your interference risks destroying their practice. Now it is possible to accept and respect autonomy, but pay attention to the way scientists easily cross the boundaries of their practice without being aware of the different role they should then take: without being aware that the constraints of the scientific practice don't hold for the civitas. Scientists should be civilized, that is respect the fact that there are other obligations to respect outside their boundaries. It is a change of habit we may work for that as soon as scientists claim they invent or produce things that concern others the border is crossed and a politics-of-in-between must be recognized and organized. Crossing the border from confined to open field research demands negotiating different obligations.

Instead of 're etiquette' of scientific research in order to get hold of big money, scientists may enter the cosmopolitics knowing that the meaning of what they propose to others does not belong to them as soon as they are out of their borders. It means entertaining non pedagogical relations with their outside and learning how to present themselves without insulting/disqualifying/judging others.

This is related to the question of tolerance. There is no problem with tolerance as long as you use it in a way such that you also ask others for tolerance, ask them to tolerate you. The problem begins when practitioners feel that their obligations or habits are simply "rational" ones, that everything would be more simple if everyone did share them: they will tolerate differences but still dream their disappearance. Then the only way they can relate to their outside is "pedagogy", asking others to first understand what they bring in their own terms. This is uncivilized.

In relation to the idea that the *Etat de droit* can only be an *Etat du droit*, Isabelle remarks that this would preclude any speculation (search for possibility). Mireille remarks that a relational conception of law connects very well with the central themes of the Cosmopolitics as a relational conception of law is linked to a counterfactual understanding of its basic concepts, that imply open texture, creating room for possibility beyond plausibility.

In relation to the idea that reification should be avoided, Isabelle holds that reification is the proces of producing new res (reification is an event). However, the reification of correlations is a problem.

In relation to the idea that the way the term 'obligation' is used in *Cosmopolitiques* is very general, while within the law is has a very specific and precise meaning, Isabelle emphasizes that the term is not used in a general but in a generic way. This means that the term will acquire a distinct meaning within each specific pratice, while at the same time this distinct meaning is not the end of it. When speaking of the obligations of lawyers one would - in terms of *Cosmopolitiques* - refer to the loyalties of lawyers that constitute their practice as a distinct practice. And these loyalties/obligations should

never be understood as matters of fact (a closed conception) but as a state of affairs (that implies the possibility of an opening). Isabelle also refers to Latour's book on the practice of law within the French Conseil d'Etat, that demonstrates the *controlled modifications of the 'contraintes'* of administrative law.

In relation to the transversal theme of 'food security' Isabelle remarks that GMO's are getting out of the confinement of the laboratory, while still pretending their autonomy. This calls for the civilization of the scientists. The quantitative changes that are brought about by the introduction of GMO's could lead to a qualitative change of our cosmopolitics. The problem is that all participants in this field are connected to big business and the question is whether the knowledge that is created by the networks in biotechnology is not fragmented up to a point where the sharing and negotiating of knowledge is completely absent.

In relation to the transversal theme of correlated man, one can think of the changes in the public/private realms, caused by high-tech developments like ambient intelligence and internet. Isabelle emphasizes that correlations have many practical meanings depending on their utilization, but that a distinction should be produced anyway between the average man and the correlated man. It is important for us to explore this notion further.

Presentation of the website and strategy concerning website (presentation ULB-team)

In the afternoon-session Didier Demorcy presented and explained the construction of the website: Imbroglio. It was agreed that everyone will send his username & password to Hans Comijn, after which the website can be used as a means to exchange texts amongst the researchers of the project. The exchange is organized along the lines of the workpackages on the one hand, and along emerging questions on the other hand.

Planning and strategy for the first annual report and the follow-up committee.

Mireille Hildebrandt and Nicolas De Sadeleer explained the obligations of the different workpackages in relation to the annual report. The guidelines of the DWTC and the model-workpackage 7 were discussed. So far the workpackages of wp 2, 6, 7, 8 (partly) and 10-13 have been handed in. Serge, Nicolas and Mireille will sit down together as soon as all reports have been received, in order to see to a coherent report in which the work of different teams within the same workpackage will receive special attention.

For the report to be ready in time, **it is important that the first draft of the workpackages be reported back to Mireille and Nicolas by the 17th of February.**

Agenda for the coming year

The team of the VUB is organizing a seminar every other Thursday at the VUB, to present and discuss its own research. Several researchers from other teams have been/will be invited to present some of their findings.

In November 2003 an international conference will be organised on GMO's; the initiative will be further developed by the VUB-team (Daniel de Beer, Nicolas de Sadeleer, Karin François, Hans Comijn) in dialogue and cooperation with the other teams.

In June 2004 an international conference will be organised on 'correlated man'; the initiative will be further developed by the VUB-team (Mireille Hildebrandt e.a.), in dialogue and cooperation with the other teams.

Mireille Hildebrandt

PÔLES D'ATTRACTION INTERUNIVERSITAIRES
INTERUNIVERSITAIRE ATTRACTIE POLEN
INTERUNIVERSITY ATTRACTION POLES

PHASE V/16

'Les loyautés du savoir'
'The loyalties of knowledge'
'De verbondenheden van het weten'

Network seminar
The correlated human

Friday, May 23rd 2003

Ghent University
3 Volderstraat, 9000 Ghent

SEMINAR PROGRAM & ORGANIZATION

Seminar Organisation

Date: Friday May 23rd 2003

Place: Ghent University, 3 Volderstraat 9000 Ghent

Contact: Karen François, Centre for Logic and Philosophy of Science (CLWF)
Free University of Brussels
E-mail: karen.francois@vub.ac.be

If you have any problem on the day of the seminar you can call: +32 (0)473 749603

Program

09.30 Reception with coffee
Chairperson: Koen Raes

10.00 Welcome and introduction on the theme of the seminar 'the correlated human'
Koen Raes

10.30 The correlated human in relation to 'the man
as seen by the law'
Serge Gutwirth

11.00 Discussion

11.30 Is 'the correlated human' all that new?
Jean Paul Van Bendegem

12.00 Discussion

12.30 Lunch in the restaurant Pakhuis / Club
Mineral (just five minutes walk away)

14.00 Help, my genes are correlated
Mireille Hildebrandt

14.30 Discussion

15.00 **Website:** activities and questions

15.45 Coffee

16.00 **Planning** and administration:
Debriefing follow-up committee
Proposed colloquia and congresses in co-operation
Further administration

17.00 Close of meeting

PÔLES D'ATTRACTION INTERUNIVERSITAIRES V/16
INTERUNIVERSITAIRE ATTRACTIE POLEN V/16
INTERUNIVERSITY ATTRACTION POLES V/16

'Les loyautés du savoir'
'The loyalties of knowledge'
'De verbondenheden van het weten'

Network meeting on GMO's
ULB - Brussels
December 17, 2003

The minutes of this meeting can be found on the web log of Imbroglio:
http://www.imbroglio.be/weblog_pai_archive/000144.html

Date: 17/12/2003

Venue: 10h

Place: ULB, Campus du Solbosch/Brussels, room UC2.155

Program:

- 10h00: General introduction, by Serge Gutwirth, moderator.
- 10h15 - 11h30 : **Session 1 : “What has been done so far ?”**. Each presentation will be divided in two: a state of affairs and, if necessary, a session of informative questions. No discussion yet. The presentations will present a state of the already undertaken researches, as well as of the work in progress therein. Abstracts of the presentations will be or are already posted on imbroglio.be (in the Weblog-section).
 - o FUL: 45 minutes.
 - François Mélard: Titre provisoire : Les enseignements de la conférence citoyenne sur les tests génétiques.
 - Gaëtan Vanloqueren : Titre provisoire : Le secteur de l’arboriculture fruitière face à l’innovation transgénique et à ses alternatives : le cas des pommiers résistants à la tavelure.
 - o UG: 30 minutes.
 - Dani De Waele: "The GM Food debate: how tasteful is technology (and for whom)".
- 11h30 – 11h45: Coffee break.
- 11h45 – 13h
 - o VUB: 45 minutes.
 - Daniel de Beer et Nicolas de Saedeleer: "OGM et politique législative dans l'Union Européenne".
 - o ULB: 30 minutes.
 - Jean-François Desaeleer : "Exploration de controverses pour les étudiants bioingénieurs de l'ULB".
- 13h00-13h30: Lunch break.
- 13h30-16h00: **Session 2 : “Exploring the paths of further research”**. *Tour de table*, followed by a general brainstorm/discussion. Questions for the *tour the table*: "What did I find interesting in the work in progress of the other teams, and where do I think my work is interesting for them?". The focus will be on the possibilities of *mutual* enrichment of the different WP of the IAP, as well as on the possibilities of *common and interdisciplinary* work around GMO'S.
- 16h00-16h30: *Imbrogio.be* (presentation by Nathalie Trussard and the web-team on the possible improvements of the weblog; discussion on our use of Imbrogio).
- 16h30-16h45: Administrative topics.
 - o Publications: emphasis on common publications and collective publications.
 - o Annual report 2003
 - o Follow-up committee
 - o Next network meeting