



## **Analysis of the participatory set-up and its outputs**

**Deliverable: D6b**

**Title: Analysis of the participatory  
set-up and its outputs**

**WP: 6**

**Dissemination level: PP**

**Authors: François Mélard  
Annick Melchior**

**Delivery Date: July 31<sup>st</sup>, 2009**



# Table of contents

Table of contents.....	2
1. Introduction.....	3
2. Objectives .....	3
3. Resources .....	3
3.1. Knowledge of the case.....	4
3.2. Methodology .....	4
3.3. Internet tools.....	4
3.4. Theoretical and analytical approaches .....	5
4. Implementation.....	5
4.1. Creating the collective.....	5
4.2. Getting the issues to emerge.....	6
4.3. Learning the Debategraph approach .....	7
4.4. Putting the maps to a broader public .....	8
5. Results and analysis .....	9
5.1. Results from the standpoint of the controversy .....	9
5.1.1. Place of emotions: How to take them into account?.....	9
5.1.2. Tensions between different types of knowledge .....	11
5.1.3. Role of the press.....	12
5.1.4. Tensions between amateurs and professionals .....	13
5.1.5. Place of scientific literature .....	14
5.2. Results from the MACOSPOL project's standpoint .....	15
5.2.1. The Debategraph's potential.....	16
5.2.2. Mastering the Debategraph and creating habits.....	16
5.2.3. The "broader" public: resource or scarecrow? .....	18
5.2.4. Guidance and supervision.....	20
5.2.5. Mandate.....	21
6. Conclusions .....	22
6.1. The set-up's effects on the collective.....	22
6.2. The collective's effects on the set-up.....	24
7. References.....	24
8. Annexes.....	26
8.1. Organisation of the three workshops.....	26
8.2. Alphabetical list of the participants.....	27
8.3. Debategraph's structure.....	28
8.4. Explorer View .....	29
8.5. Mapper View .....	30

# 1. Introduction

The reason for being of Work Package 6, called “Political Relevance”, was to test the social and political relevance of one or more dimensions of the MACOSPOL platform<sup>1</sup> set up to give people the tools and knowledge that they need to reach an enlightened opinion of controversial issues marked by high degrees of scientific and technical uncertainty. To this end, an experiment was carried out with some key players in a current controversy (the phenomenon of honeybee die-off in the Walloon Region, Belgium) in order to determine both the merits of such a platform from the point of view of the content generated by the creation of the map (output) but also, and above all, from the point of view of the quality and relevance of the exchanges between stakeholders and communicators during the mapping exercise (outcome).

Where was WP6 positioned with regard to the other WPs in the project? In accordance with its objectives, WP6 chose an *ad hoc* case study, methodology, and mapping resources. Given the diversity of approaches that were put forward thanks to the consortium members’ various types of expertise, we made choices that would enable us to evaluate as accurately as possible the “political relevance” of generating these mappings of controversy. This led us to prefer a tool that could foster the convergence of a heterogeneous public in a virtual area of debate (and which, given the constituent elements of the future MACOSPOL platform, referred to the following potential capacities: *housing various forums, virtual witnessing, assembly building, issue mapping, and so on*).

Finally, the scope of our experiment was limited to creating a collective composed of stakeholders in the issue under debate but whose contributions could be organised with a view to sharing them with an extended audience. So, in line with this perspective, a few “communicators” were added to the group and given the main task of helping to deploy and make the stakeholders’ interests, positions, and arguments comprehensible to and/or usable by others.

## 2. Objectives

The idea in setting up the technical, theoretical, and methodological resources of the MACOSPOL project was to test the feasibility of mapping the stakes riding on an environmental controversy collectively and interactively, with this work being done by the stakeholders themselves with the help of the communicators.

Within the context of an intervention-research approach, the questions became: How can the interests, positions, and arguments be shared with a view to making them visible to a broader public? Does this type of sharing make a difference for the group? And on what levels?

## 3. Resources

This testing required mobilising a rather heterogeneous set of resources in terms of their provenance, customary contexts, and uses.

---

<sup>1</sup> See the ten constituent elements of the MACOSPOL platform (Section B.1.1.4. Material core of the MACOSPOL platform of the MACOSPOL project).

### 3.1. Knowledge of the case

Here are a few sources of information that were available prior to the experiment *per se*:

- Initial contacts were made with beekeeping circles (two years earlier) as part of an intervention-research project (PEPAM project financed by the Belgian government in 2006) aimed at cooperation between citizens and experts around devising a pesticide assessment model (with bees as the main indicator)<sup>2</sup>.
- Some of the stakeholders in the honeybee die-off issue were invited to present their views as part of a two-week seminar held on ULg's Arlon campus as part of a Master in Environmental Management Science curriculum (MSGE, integration seminar ENVTO868, October and November 2008). The presentations and exchanges that took place provided an opportunity to take stock of the Belgian situation and to initiate personal contacts with key actors.
- Qualitative interviews of the non-beekeeper stakeholders and some amateur beekeepers were carried out (in part in combination with a course on qualitative methodologies for the MSGE).
- Participation in a beekeepers' convention (in Villefranche, France, in October 2008) enabled us to place the issues involved in a European context.
- We took stock of the situation under the MACOSPOL project in order to commence the case study (see deliverable D6.a.).

### 3.2. Methodology

The experiment itself involved a combination of several methodologies, as follows:

- Running a participatory process aimed at giving rise to questions to debate and expand upon. To do this, we used two tools: a brainstorming fresco<sup>3</sup> and the metaplan® technique<sup>4</sup>.
- Guidance and support in using a Web interface based on wikis.

### 3.3. Internet tools

- Risk Mapping: This platform, which was developed by the MACOSPOL consortium's Munich member, was tested on the honeybee die-off case based on a fragment of the data used to produce deliverable D6.a. (presentation of the case study). The aim was to get an idea of the platform's logic and functioning through actual practice and to see to what extent it could be included in the testing being carried out under WP6<sup>5</sup>.

---

<sup>2</sup> Feasibility of a participatory modelling process for pesticides risk assessment – PEPAM, Research project OA/27 – Belgian Science Policy. This report can be obtained at the following address:

<http://www.belspo.be/belspo/fedra/proj.asp?l=en&COD=OA/27>

<sup>3</sup> See below, p.6.

<sup>4</sup> See below, p.7.

<sup>5</sup> We intended to use the materials deposited on the Debategraph site as resources in doing the risk mapping for the honeybee die-off. Unfortunately, the content that the Debategraph generated was not deemed sufficient to justify importing it into the maps.

- Debategraph: This platform, which was discovered thanks to WP1's (Demoscience) work, enabled us to correct in part a series of interactivity problems that plagued the Risk Cartography platform. So, by fostering flexibility and the openness of the graphic editing, the Debategraph led to a mapping approach that focused more on the original questions raised by the stakeholders themselves. This is an open-access platform (under a "Creative Commons" licence)<sup>6</sup>.

### 3.4. Theoretical and analytical approaches

- The intermediate object approach ("*objets intermédiaires*" in French): Used to situate the place that the Debategraph would play in designing the participatory set-up;
- The conceptual perspective opened up by the ecology of practices developed by Isabelle Stengers, especially the duties/requirements ("*obligations/exigences*" in French) pair as a way to understand the possibility of a diplomacy of practices (Stengers 2006).
- ANT (Actor-Network Theory): as a theoretical resource behind the scenes of the analysis of the participatory set-up (role of bees, spokespeople, means of getting parties involved, etc.);
- CATWOE analytical grid: This grid was the same one used during the integration seminars in order to help the students summarise and compare the various points of view that were expressed. The CATWOE grid is a methodological sub-element that belongs to an intervention-research approach, namely, the Soft System Methodology developed by Peter Checkland (Lancaster University)<sup>7</sup>.

## 4. Implementation

The implementation of the evaluation comprised four major, more or less interdependent, phases or stakes, namely, creating a collective, having the issues emerge, familiarising the members of the collective and other users with how the Debategraph works, and, finally, showing the mapping initiated by the collective to a broader public.

### 4.1. Creating the collective

Our collective consisted of stakeholders (other than the beekeepers themselves), practitioners, and communicators. The review of the controversy had enabled us to identify the main stakeholders in the Walloon Region (see Deliverable D6.a). As for the communicators, we wanted at the beginning to have a journalist, museum curator, teacher, agent in the field of environmental education, and webmaster on board. Each status had a defined role: The stakeholders were to publicise their positions by feeding their questions and arguments into the maps; the beekeepers were to testify to their experiences and practices; and the communicators were supposed to



<sup>6</sup> The Debategraph was developed by Peter Baldwin and David Price. As cofounders of Debategraph.org, they are helping to make "the best arguments on all sides of every complex public debate freely available to all, and continuously open to challenge and improvement by all". Their Web site's address is [www.Debategraph.org](http://www.Debategraph.org).

<sup>7</sup> See [www.mappingcontroversies.net](http://www.mappingcontroversies.net).

help clarify the debate and assess the abilities of the Debategraph's maps to transmit and share complex information to/with different publics. The experiment was carried out in three phases: a first meeting to teach the collective how to use the Debategraph and start the mapping; a second meeting halfway through to assess the first month of use and decide on ways to open up the Debategraph; and a third and final meeting to wrap up the experiment. These meetings took place at the end of April, May, and June, respectively (see annexes, p.26).

Mobilising the stakeholders was not easy. The rather tight schedule was not the only reason for this. There was also the change in the regional legislature, which prevented decision-makers' participating in the undertaking, and the lack of a political mandate to support the test and ensure that the public authorities would take account of its results. Indeed, the stakeholders were more used to exploring the issues that concerned them via commissions set up by the administration. The exercise that we asked them to conduct, *i.e.*, to announce their positions publicly to the people, was thus rather unusual, since it shifted the position of the frame of action under which they ordinarily worked. Finally, our collective consisted of five stakeholders, two beekeepers, and four communicators (see annexes, p.27). Two of the eleven people initially foreseen to take part in the group (a stakeholder and a beekeeper) who were unfortunately both from the beekeeping milieu<sup>8</sup> dropped out along the way. The resulting group was given both collective guidance via the three workshops and individual guidance through interpersonal meetings.

The members' degrees of participation varied greatly. So, of the eleven participants, three stakeholders and two communicators truly took their roles to heart and interacted copiously via the tool. With hindsight we can say that we should definitely have been more proactive and elicited their reactions by proposing articles for discussion, for example, but the difficulty also stemmed from the silence of the Apicultural Research and Information Centre CARI, the stakeholder that we assumed would bring some contradiction to the debate but which finally dropped out of the experiment (this raises the question of the Debategraph's ability to relay minority points of view). The period of opening the debate to a broader public, for its part, was not a great success: We got only eight new registrations from the entire group of people whom we contacted<sup>9</sup>, and only three of them were truly active. At the close of the experiment, we thus ended up with less content (few outputs) than expected to evaluate the Debategraph's abilities to achieve the project's aims. As a result, we decided to extend the mapping for the entire month of July.

## 4.2. Getting the issues to emerge

Getting the issues that the collective felt were important to discuss and make public was a major stake riding on the test, since it reflected the areas of shadow and uncertainty that kept the controversy alive. As one of the objectives of the first workshop was to launch the mapping of "matters of concern", we got some of these issues to come to the fore by means of a "brainstorming fresco"<sup>10</sup>. One of the issues was then developed more extensively using a

---

<sup>8</sup> Luckily, some of the stakeholders wore several caps: Three of them were or had been beekeepers, and even though they had not been mobilised with such functions in mind, they could not remain totally blind to that facet of their backgrounds.

<sup>9</sup> We contacted some fifty people, including some who served as relays to other groups or publics. For example, we asked the presidents and secretaries of beekeepers' associations to send the information out to their members.

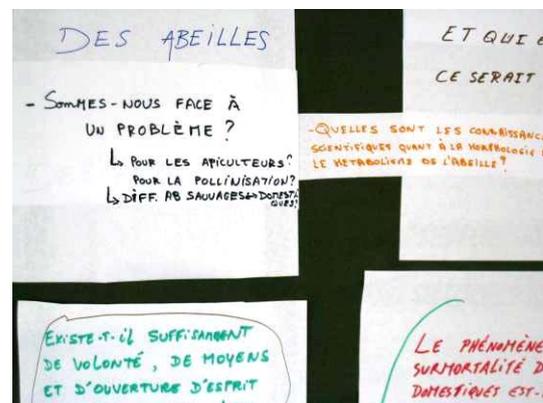
<sup>10</sup> This is a tool that can be used when the activity leader's job consists in getting a group to engage in thought on a subject. This exercise gives each participant the opportunity to express him/herself with regard to the chosen subject, whether in writing or drawings, and the group then discusses these "statements".

metaplan®<sup>11</sup>. This thus gave us a first corpus of questions, positions, and arguments that served as a basis for showing the participants how to use the Debategraph.

During the first workshop we thus discussed the form to give to the mapping in order to include these issues in the Debategraph space. The participants were driven by the concern not to lose future users. As a result, some of them opted for a conventional linear presentation in which information was organised and ranked clearly (but that meant according to a certain view of the controversy), whereas other opted for a more “exploratory” presentation in which there could be many entry points that would increase the flexibility with which the diversity of the users’ questions and approaches could be handled (although this reduced the readability of the entire interface). According to



the communicators, the main problem from a formal point of view was the absence of a logical order for exploring the controversy rather than the lack of a hierarchy of the elements. We thus found a way to restore some linearity to the way we would present the issue on the Debategraph website by organising it around five points (history, data, causes, consequences, and stakeholders), and subsequently added three more points (“did you know...”, “glossary and resources”, and “help”) (see annexes, p.28).



Regarding the entire experiment, we can say that, on the whole, the Debategraph let a large number of questions (specifically “matters of concern”) rise to the surface, even though, at this stage, many of them must still be fleshed out by positions and arguments. The questions raised included some “conventional” issues that have been known for a long time and some emerging issues born of the experiment that would not have been generated by meetings of the stakeholders alone (these included issues of society, the place of emotions, the dialogue between experts and beekeepers, and so on).

### 4.3. Learning the Debategraph approach

The Debategraph is a tool for visualising debate that is founded on the principle of wikis. It consists of two main interfaces: one to explore a debate (the “Explorer View” – see annexes, p.29), and the other to edit information (the “Mapper View” – see annexes, p.30). Users may add new elements, add to existing elements, or even interact via comments. The Debategraph site supports a host of forms of expression: text, videos, and pictures (both photographs and figures or graphs). New elements must be added and edited according to a specific grammar with which all users must comply in order to ensure the consistency of the debate: no taking a stand without

We chose this technique for two reasons: because it facilitates the participants’ involvement (by the “rite” of writing) and it spurs interaction (through the discussion of the results). See Hansotte, M. (2004). *Les intelligences citoyennes, Comment se prend et s’invente la parole collective*. Brussels, Éditions de Boeck Université.

<sup>11</sup> For a description of the metaplan, see the [CIPAST](http://CIPAST) project site and [www.metaplan.com](http://www.metaplan.com).

asking a question first, and no arguments without taking a position, for example. The statements must also be drafted according to a certain template: An element must be composed of at least a title (up to 70 characters), to which one may add an abstract (up to 300 characters), and an expanded text (up to 50,000 characters), in order to ensure the clarity of the debate. Whilst the tool is open to everyone, that is not necessarily the case for the debates that it generates. The debate may be either private (in which case only the people who are invited may have access to it) or public (in which case, everyone has access to it), depending on the objectives of its creators. However, the debate's status be revised at any time.

Learning how to use the Debategraph was a *sine qua non* of our experiment. However, the tool required a certain learning effort on the part of its future users. That is why we spent a whole day during the first workshop teaching the members of our collective how to use it. In addition, we produced a tutorial and a digital version of the tutorial in the form of a website. At the participants' first meeting with the interface they were rather put off by the tool, which, it is true, is rather comprehensive and thus complex (and in English only, moreover), especially as none of them seemed to be familiar with wikis. However, most of them quickly got the hang of the interface. They found the editing menu, which was more than complicated, too constraining and preferred to contribute and interact through the "comments" option. Editing new elements effectively required more drafting and structuring than making comments, as the text had to be divided into three parts, *i.e.*, a title, an abstract, and a detailed text. This hampered their thinking, as they could no longer follow their own lines of reasoning. The comments, on the contrary, were closer to face-to-face interactions such as the ones that took place during our workshops. Moreover, the "comments" category is where the richest information emerged, as the dynamics of the exchanges fuelled their thinking. As moderators, we got into the habit of raising interesting comments to the next level to give them more visibility (see below, p.18).

#### 4.4. Putting the maps to a broader public

Showing the results of the mapping exercise to outside audiences proved to be the trickiest part of our experiment. This part was supposed to enable us to assess the set-up's impact on the collective's members (and on the stakeholders first and foremost): Did it make a difference for them to have to give their positions publicly to individuals other than their usual interlocutors (*i.e.*, decision makers)? This phase of dissemination to "the outside world" also enabled us to gauge the "sustainability" and social relevance of the tool: Is it sustainable with minimal supervision? Is it an appropriate tool for communication regarding scientific and technical controversies? Does it allow individuals to take up and grasp the questions surrounding an issue that concerns them?

Opening up the mapping posited the ability of the people who were contacted to make use of the tool. However, this time it was not possible for us to give them individual or even group guidance in learning to use the interface, as we had done for our collective. The publics were too vast and diversified to be able to meet with them in the allotted time span. In order to facilitate a minimal acquaintance with the Debategraph, we privileged a method of gradual expansion of the set of those to be familiarised, proceeding from people who knew each other and who were part of the larger network of people known to the members of the working group. We also mobilised some publics by the Internet, through an e-mail list (the "bees list") that beekeepers sent out to each other. The only guidance that we could provide them with consisted of the tutorial, a Website (which was less linear), and a FAQ ("frequently asked questions") page that we attached to the Debategraph site (this was a set of questions (plus their answers) that the collective's members had regularly asked during our individual meetings with them). However, at

the end of the first month of the Debategraph's use we had registered a very low percentage of outside participation: only eight new subscribers, of which only three were truly active, even though other people had logged on to explore the debate without taking part in it. There are several explanations for this lack of success<sup>12</sup>. According to the collective, it was probably overly ambitious to think that the various publics whom we had contacted would be able to master the Debategraph technique in so little time. However, this low participation rate at least had the merit of prompting us to think about the conditions that would have to be met to get people interested in taking part in a debate.

Opening the debate up to other publics was not just a matter of mastering the interface. Another aim of the exercise was to evaluate the effects of opening it up on the collective's attitudes and reactions. As we shall see farther on, opening it up spawned a sort of "retreating attitude" in some of the participants who wanted to remain in control of the debate, an effect that in turn led to another change in the tool (see below, p.17).

## 5. Results and analysis

### 5.1. Results from the standpoint of the controversy

#### 5.1.1. Place of emotions: How to take them into account?

It became apparent as of the first bees collective that "affect" clearly had a role to play in determining the important questions to ask (and thus to map) regarding the current beekeeping problem. This dimension was the lasting vector of sharing that could not have been expressed in the closed-door settings of ministerial commissions, or at least so we thought, and this position was supported by the collective's members' past experiences. This was important, for it revealed in a choice manner, provided that all of its dimensions were deployed, all of the sources of worry or "matters of concern" that fed part of the problem linked to the honeybee die-off.

This "emotional dimension" was an aggregate of several components, to wit:

*The emotional as an indicator of passions.* This aspect was tackled during thinking about the conditions of – and commitment to – beekeeping and scientific and technical practices. Indeed, communicating about passions had the paradoxical effect of communicating symmetrically about two practices that normally had nothing in common (when it came to their institutional organisation, types of knowledge, etc.).

- So, from the bees collective's viewpoint, examining what drove the beekeepers in terms of both work and emotions commitment to their colonies, was important if we wanted to circumscribe their degrees of investment correctly (but also of divestment when the charges and frustration linked to the sudden collapses of their colonies appeared) and the importance that their commitment to searching for the causes of this phenomenon and above all concerted management of the die-off problem had in their eyes. The issues of

---

<sup>12</sup> Difficulty mastering the tool for technical reasons; lack of links with the collective; not the right forms of expression; wariness triggered by the lack of contradiction due to the absence of certain viewpoints; lack of motivation to take part in a debate, the outcomes of which had no guarantee of being taken on board (by politicians and policy-makers), given the absence of a brief to support the experiment, and so on.

their responsibility for their colonies and feelings of guilt in the case of unexplained losses are thus what came to be expressed.

- Symmetrically, this emotional dimension was also brought to the fore by the “scientific” members and “experts” in the bees collective through communication of their passion regarding their own practices (for example, M. De Proft and B. K. Nguyen, *inter alia*). Moreover, it is interesting to note that some of these people were also beekeepers themselves. In this way, the collective allowed itself to exchange views on the merits of the research (the dynamics of doubt and questioning, the emotional ties to the subjects of study, etc.). This was recognition of the fact that an entire facet of this scientific activity emerged as a source of motivation (but also sometimes as a source of disruption) in tackling the uncertainty that affects the search for the causes of the die-off. From this perspective, we can liken these exchanges to what might constitute “duties” that the beekeeping and scientific communities set themselves in order to be able to do their work (Stengers, 2006).
- Finally, the public, which is a crucible of emotions, could also be mobilised as a resource in order to share and discuss what transpires in the scientific and beekeeping camps. So, *the most accurate translation of this affectivity within the Debategraph and above all its ability to attract the interest of a broad public* was considered an important task to produce a Debategraph on a “real-life scale”. Some of the communicators of the collective (here we have M. Van der Brempt and H. Dupuis, *inter alia*, in mind) argued that giving justice to this dimension within the Debategraph would make it possible to build a bridge to the (broad) motivations of the platform’s users community and thus relay worries with which this community would be able to identify. Seen from this angle, delving into what worried the public when the matter of the honeybee die-off was raised (for example, the threat of honeybee stings, changes in the quality of honey, etc.) could not be avoided. Emotions were considered a way to attract public interest. Finally, raising awareness of the honeybee’s plight that entailed not only presenting the facts (objective diagnoses), but also presenting what makes beekeeping and scientific practices human and socio-economic activities as well could be an original resource for sharing and discussing them.

These exchanges also revealed *tension between the enunciation of these emotions, passions, and affectivities, and the need to investigate in the most “objective” way possible the honeybee die-off’s causes*. The question of the possible co-existence of these emotions and the exercise of “technical democracy” very quickly came up. Recognition of the emotional and thus social dimension of expert practice within the collective thus had to be taken on in one way or the other, on pain of upsetting, through what was not said, positions that could not be explained by technical aspects alone.

Examples:

- How amateur beekeepers and their motivations are perceived.
- How to account scientifically for measured phenomena when their selection and the way that they are written are also dependent on how easily they will be received by the stratum in which one is involved professionally.
- Understanding the protagonists’ motivations is vital in order to frame the problem to cover in a scientific manner.

Finally, *how to give life to this dimension (which came out of the collective’s exchanges) within the Debategraph* is a question that arose quite naturally. Three difficulties came to light in this regard, to wit:

- What competences (reflexivity) should be mobilised for this to occur (M. Van der Brempt)? Must we look for them in “specialists” (*e.g.*, in social psychology, etc.)?
- Won't sharing the debate with the public (via the Debategraph) be a source of inhibition?
- How does one get this dimension to co-exist technically within the graph? Is it preferable to speak openly or under cover of a pseudonym to facilitate the debate? Might it be expressed best in the form of testimonials?

### 5.1.2. Tensions between different types of knowledge

What place does the Debategraph reserve for empirical knowledge? Can it allow for beekeepers' knowledge as much as the scientific knowledge that is mobilised in the controversy?

We wanted to turn the interface into a meeting place for the different types of knowledge mobilised in the issue, a place where they could all be presented on an equal footing and be exchanged. The knowledge involved is effectively of different natures. So, beekeeping knowledge, which is closely intertwined with practice and experience, also enjoys less credibility than supposedly objective scientific knowledge. Beekeeping knowledge, which has been formalised little (at least in Belgium, where apiculture is basically a hobby), is above all a type of know-how that is difficult to put into words, unlike scientific knowledge, which is disseminated by publications. However, like all knowledge, beekeeping also uses an esoteric vocabulary that must be elucidated, just as the language of science must be. As the Debategraph includes various forms of expression (writing, videos, and photographs), we thought that it would be able to put across both the less formal and more formal knowledge involved. Beekeepers are using videos and photographs more and more often to share their observations, and many such materials are circulating on the Web. Unfortunately, this possibility was not sufficient for the beekeepers to avail themselves of it, for none of them used it (as we shall see later on, availability does not mean effectiveness *ipso facto* (see below, p.12)).

The successive dropping out of the two “official” beekeepers in the collective (first José Artus as an active beekeeper, then Mr Bruneau as CARI's representative) was probably due to a variety of factors. So, at the experiment's launch, Mr Artus was plagued by health problems that kept him from taking part in our meetings. However, more fundamentally, we wonder what “taking the floor” can mean for a beekeeper, even for one as well known and experienced as Mr Artus. Speaking on his own behalf and on behalf of his own experience proved difficult for our beekeeper. Our meetings with him enabled us to take full measure of the difficult he had accommodating knowledge based on empiricism and his relationship with his colonies with the requirements (that he rightly or wrongly felt as such) of having an informed point of view that could offer a certain degree of generality and objectivity. Speaking on the basis of his own personal experience probably led him to censure his remarks so that he preferred to talk about real-life experiences with people who were familiar with the work in the field and with whom he could share his worries and thoughts about the possible causes of the die-off using his own vocabulary. We probably under-estimated the difficulty of such sharing within a collective, however open it might be. Whereas the goal of the approach initiated with the Debategraph experience was not to resolve the controversy but to share information drawn from necessarily diverse types of experience, the reality that all the people involved were not on equal footing to share these experiences, especially with a view to managing this problem (even though this prospect was not actually shared by our collective), probably lurked constantly in the background. More generally speaking, the difficulty that the beekeepers had expressing themselves in the Debategraph may also have been due to the fact that the other contributors (that is to say, the stakeholders) had been mobilised to speak for their institutions and not just for themselves, as the beekeepers had been asked to do. In the absence of a representative (given CARI's

withdrawal) to take on the role of their spokesperson, the beekeepers may not have felt authorised to voice their views. However, the very question of the beekeepers' spokesperson was discussed within the collective. It would also have been difficult for the federations themselves to fill this role, since each of them represented only a portion of Wallonia's beekeepers (the federations correspond more or less to the geographic boundaries of the region's provinces). Whilst the stakeholders, for their part, did not all throw themselves into the debate with the same intensity, we can say that the tool made it possible to identify each one's point of view quite clearly.

To sum up, it is difficult to determine whether the beekeepers' quasi non-participation was due to the Debategraph's not being the right tool to allow for their knowledge. Other parameters must be considered, notably the under-representation of apicultural viewpoints when the debate was opened up to a larger group<sup>13</sup>. This may have discredited the debate in some people's views. What is more, the difficulty of mastering the tool was definitely detrimental to the collective, as most of the beekeepers were relatively elderly.

Aside from the tool, the experimental set-up that we chose had the advantage of triggering discussion about taking account of non-scientific knowledge in handling controversial issues. Whilst such knowledge was often discredited because it was not stamped with the seal of objectivity and scientific method – marks that the participants desacralised to a certain extent, it might be added –, some members of the collective felt that giving them the possibility of expressing themselves on equal footing with “established” scientific knowledge was of capital importance, as they were certain that learning from each other was possible. Unfortunately, the beekeepers' contributions were too scarce to enable us to take a stand on this, even though a few of them showed that it was pertinent to consider them.

### **5.1.3. Role of the press**

Does the meeting area that the Debategraph offers make this tool a good intermediary between science and society? Is the opportunity grasped simply because it exists? Can the Debategraph help or improve the journalist's investigative work? According to the participants, the Debategraph cannot replace the investigative journalist's work in the field, for it cannot soak up the wealth of interactions that exist. It nevertheless seems to be able to help the journalist's investigations through the both implicit and explicit information that it provides. The Debategraph is effectively able to reflect the various contributors' positions, the occupational pathways of the people involved in the problem and their means of financing, and research outcomes – all aspects that interest the investigative journalist. Most important, the Debategraph enables one to identify points of contradiction and relevant issues within and outside the scientific community and thereby help the journalist to choose the avenues to explore or, on the contrary, to abandon. Nevertheless, these potentials are relative. They prove effective only if the tool is accompanied by certain conditions. Everything depends on the way it is implemented: Are all viewpoints represented? Is the debate sufficiently lively and supported by sufficient input? Can the content of the debate be readily grasped?

Aside from the tool itself, the role that the press played in the controversy attracted the collective's attention and was a subject of discussion in the mapping exercise, where various positions were taken in its regard. In particular, the press was criticised for having fanned the flames of the controversy by playing upon emotional factors (abusively, according to some).

---

<sup>13</sup> Under-representation but not absence, since some stakeholders sometimes spoke as beekeepers as well (See above, p.6).

Now, whilst the emotional register is a register of media discourse and used – rightly – to hook audiences, certain protagonists felt that articles in the press and television broadcasts boiled down to such emotional arguments all too often. They also criticised the media’s tendency to interpret and/or distort their interviewees’ statements by taking them out of context. Yet not a single example of journalism was put to discussion in the mapping. It would have been interesting to have an example of an article in the press to see what the Debategraph could contribute with regard to an article, for we chose this tool specifically because it gave each and every party a chance to express themselves, at least in principle. So we found ourselves dealing with the same kind of situation as with the beekeepers. This led to a paradox: The wiki met certain expectations of its users, since it did away with the intermediaries, but this technology was not sufficient on its own; it required a minimum amount of guidance or supervision, which resulted in the reintroduction of new intermediaries (moderators). Whilst the possibility of expressing oneself was very real, the conditions that would enable people to seize this opportunity still had to be provided.

#### 5.1.4. Tensions between amateurs and professionals

How does a milieu made up primarily of amateurs make itself heard by the milieu’s managers on issues that concern them first and foremost? This question at the heart of the enunciation of “second-degree objectivity” came up following the realisation of how difficult it was to pinpoint the functioning of Belgium’s apicultural milieu and the stakes riding upon it. Our remarks will thus hinge upon the two following and closely linked lines of thought:

First of all, the Belgian beekeeping milieu is characterised by an almost absolute majority of amateur beekeepers, unlike the situation in the surrounding big countries of France, Germany, Spain, and Italy. Next, despite a resurgence in the number of new beekeepers that has occurred in the past few years, its members belong to a rather elderly age bracket<sup>14</sup>. The entire apicultural milieu has a rather loose structure composed of various federations, associations, and circles (see Deliverable D6.a.). This makes it difficult to determine questions of representation and spokespersonship in dealing with both management bodies (*e.g.*, parliamentary committee, ministerial bodies, etc.) and initiatives to explore the die-off and other bee-related issues (such as our undertaking). When anyone pipes up, they usually do so as individuals and in chat rooms (primarily fairly technical ones) (*e.g.*, the bee list housed by CARI), or when meeting with other beekeepers (symposia, technical meetings, etc.). However, the discussions very often take the form of exchanges of questions and answers. The difficulty of expressing the milieu’s real-life experience has to do with the heterogeneous practices and notions of what “tending beehives” means in such a fragmented milieu. CARI (the apicultural technical assistance centre in the Walloon Region and Brussels), which has come to be seen as a reference institution on honey quality analysis and the dissemination of information on beekeeping practices, cannot garner unanimous support to represent the milieu, given its great fragmentation and the importance of local concerns. In a nutshell, it is difficult to be in tune with the beekeeping community and thus likewise to mobilise it in a coordinated fashion regarding issues that affect the beekeepers.

This situation becomes even more acute when the issue of the honeybee “die-off” (or “excessive mortality”) spills over into the matter of closer coordination and control over beekeeping in the country as a whole. The pressure exerted by the *Varroa* mite<sup>15</sup>, like that of pesticide use (two major causes of the die-off that were brought up within the collective), seems to have entailed a change of scale and perhaps even a reorganisation of the milieu (status,

---

<sup>14</sup> The problem is that no reliable and systematic statistics on the amateur beekeeping population in Belgium exist.

<sup>15</sup> The *Varroa* mite is a major parasite of the honeybee.

training, etc.). In this regard, a comparison is often made with other sectors of agriculture (especially pig and cattle raising). From a management perspective, reorganising a sector into one of qualified professionals ensures standardisation and more effective control over the breeders (and thus reduces the risks of spreading disease and ensures the quality of the livestock). Such professionalisation seems to be a prerequisite for a contemporary administration to be able to take up such health and safety issues effectively. *A contrario*, the Belgian administration (such as the Federal Food Safety Agency and the Ministry for Agriculture, the Environment, Tourism, and Spatial Planning) is not at all used to working with a non-professional milieu (difficulty of having influence over the beekeepers, difficulty determining who its legal representatives are, etc.). This requires either a transformation of the beekeeping milieu or the development of innovative operating modes.

### 5.1.5. Place of scientific literature

Scientific publications played a crucial role in creating expertise and a management approach within the dynamics of the bees collective, but has also done so more generally in the international controversy surrounding the honeybee die-off's existence and causes. However, we can point out the following:

- The need for the plant protection products lobby and technical representatives of beekeeping circles (in this case CARI) alike to refer to the scientific literature to back up their positions on the die-off's causes was felt to be a reality both within the collective's meetings and in the debates on the Debategraph.
- Whilst the scientific literature is global, we noticed that the weight of the literature commissioned by regional authorities polarised the attention of the plant protection product manufacturers (in the Belgian case) and that of the public authorities (as commissioners of the studies) even more<sup>16</sup>.

However, in an exploratory approach that strives to present the various dimensions of a controversy openly, examining how these articles are constructed and the effects that they have (how they are received) is just as important as their existence or non-existence. In this connection we can point out the following:

- A study's findings can be interpreted in very different ways (Maxim and van der Sluijs, 2007). So, the author of scientific publications on the causes of the honeybee die-off (Mr Bach Kim Nguyen) often expressed amazement and dismay at the way in which his articles were misquoted or misinterpreted by journalists, the representatives of plant protection product manufacturers, ministry officials, and certain segments of the beekeeping community.
- A lay public is not at all equipped to take up and understand this literature. So, the question of what the scientific articles' content meant remained totally open: As one of the communicators (an independent journalist) pointed out, a summary of their results that would enable the articles to undergo democratic debate was lacking.

---

<sup>16</sup> Indeed, the particularity of the scientific studies (when it comes to their protocols, outcomes, etc.) is often justified by the unique conditions of the region that is targeted. Consequently, they make use of this to set themselves apart from other existing studies ("Belgium is not France: The types of crop are different, as are beekeeping practices, and even the crop treatments, and so on").

- Scientific findings are also sometimes the fruit of looking ahead or self-censorship by their authors, and this shows that many other factors are involved in their production, including how they will be received by certain groups with which the scientists must work. This shows that scientists are just as socially involved in the controversy as all the other protagonists.
- Seen from this standpoint, the rather technical and inaccessible (both physically and figuratively!) nature of scientific literature might sometimes be perceived as a two-edged resource for experts and evaluations: Whilst it guarantees freedom of expression (in phase with the investigators' own research agendas), its inaccessibility carries the risk of contributing to the proliferation of contradictory interpretations. What these articles say (or what people make them say) is completely dependent on the scientific article's format (written for a community of specialists and accessible to a limited public), which caused K. Nguyen (FUSAGx) to say, ironically, that the facts had been stated and presented and "it sufficed to take a look at the article".
- The journalist pointed out, moreover, that from the standpoint of writing conventions, journalistic and scientific articles followed opposite layouts: in the former, one put forward the outcomes, then followed this up with the description and explanation of how the results were obtained, whereas in the latter, one ended with the results. This explains why the scientific article is much more difficult for the basic reader (who is more used to the "grammar" of journalism) to understand.

In the wake of our experiment, it seems to us that scientific literature (the way it is drafted, published, and evaluated) remains problematic when it is mobilised in public debates. Nothing, indeed, predisposes it to providing material for a true discussion of its results and political and social consequences. This is probably a major barrier to the full exercise of technical democracy. Several avenues were mentioned to remedy this state of affairs: Considering mobilising resources people tasked with making enlightened (even contradictory) summaries of the said literature (summaries that would not be confined to simple repetitions of the articles' abstracts), or making this task one of the collective activities of the Debategraph, whereby certain key articles in the controversy would explicitly be submitted for discussion (with the possibility given to the authors to clarify their statements). These two activities could give rise to the development of a true culture of scientific knowledge by testing and disseminating a template for analysing scientific articles that would enable people to circumscribe quickly their content and the limits of their claims.

## 5.2. Results from the MACOSPOL project's standpoint

What can we learn from the operation of the tool that served as a medium on which the bees collective interacted? According to the WP6's objectives, the role of the Debategraph is paradoxal. Whereas it was merely a technical medium on which new dynamics between players was to be achieved, the way it functioned and the technical questions that it raised gave rise to considerable pondering. Indeed, the collective's technical confrontation with the platform gave rise to the expression of a whole series of theoretical and practical questions concerning the matter of spokespeople, the establishment of a grammar specific to the mapping format, tracking position changes, and so on. We realised, in learning how to use the Debategraph and sharing this knowledge gradually with the members of the bees collective, that the discussions about its technical functioning simultaneously concerned the freedom of association, taking account of unequal experiences of the die-off phenomenon and contrasting positions within the same map

(what face to put on in the map?), and issues as vital as accountability for the traces left in the Debategraph and the need for supervision or moderators (we shall come back to this).

### 5.2.1. The Debategraph's potential

For MACOSPOL's purposes, the final platform had to include a series of dimensions in order ultimately to create a "quasi parliament". What potential for action does the Debategraph offer? First of all, it is a wiki tool for mapping debates: It allows one both to assemble and to modify the issues submitted for discussion. The Debategraph thus belongs at first glance to the "forums" category that the platform is supposed to house ("housing various forums"<sup>17</sup>). However, it also has other capabilities, such as:

- collecting and centralising new data, with everyone having the possibility of providing information about the issues being discussed, whether raw statistics, scientific results, or even observations ("collecting fresh data"<sup>18</sup>).
- creating a common area where different kinds of document, such as press articles, scientific articles, videos, snapshots, and so on, that should help people to grasp the controversy can be shared and connected up ("common space for qualitative data"<sup>19</sup>).

### 5.2.2. Mastering the Debategraph and creating habits

The exchanges conducted via the Debategraph create a special area full of potential and restrictions. From the perspective of an "intermediate object" approach (Mélard, 2008) it is interesting to observe that the technical discussions concerning the way the Debategraph functioned were so many occasions for cementing the dynamics in which the members of the collective wished to interact. In this regard, the Debategraph became a mediating object (Jeantet, Tiger et al., 1996; Latour, 2006), to a certain extent (according to the possibilities of transformation that it could undergo and the effect that that had on the collective):

*How to appear in the graph?* This question was tackled a number of times by the protagonists during the ups and downs of the collective's creation and functioning. Some protagonists wanted to give their positions and arguments a higher profile, in addition to the visibility that they ordinarily had in the discussions and issues, by posting them in a centralised manner around the bubble that represented them. Others, such as Phytofar, felt it preferable for their positions and arguments to crop up only in the course of exploring the Debategraph so as to minimise possible sources of misunderstanding, since they knew that plant protection product manufacturers had a controversial public image. The other discussion during which this question was asked was that of the commitment that one could have vis-à-vis the platform's content. Indeed, appearing as a protagonist in the creation of this platform's content exposed one to the possible consequences of how the public reacted to the content. So, after participating in the collective's first meeting, CARI dropped out of the collective, saying that its positions were so much in the minority that too much work and availability would be required to keep them alive on the Debategraph. What CARI wanted to avoid at all costs was to endorse responsibility for everything that was written on the platform<sup>20</sup>. Despite the fact that the aim of the Debategraph's

---

<sup>17</sup> See B.1.1.4. Material core of the MACOSPOL platform of the MACOSPOL project.

<sup>18</sup> Idem.

<sup>19</sup> Idem.

<sup>20</sup> This fear had been assuaged a first time by proposing to add the following observation (both in the bubble that represented CARI and in the Debategraph's description): "Given its busy schedule, CARI wishes to restrict its intervention in the Debategraph to the issue of pesticides and, more specifically, that of pesticide approval within the

content was not to present the stakes riding on the honeybee die-off problem in a consensual manner, but on the contrary to offer an area for comparison and contradiction, as a result of which the content had to be heterogeneous, CARI did not want to run the risk of having assertions that were contrary to its viewpoint but not explicitly contested appear to have CARI's tacit seal of approval. As a stakeholder with a certain position in the controversy (such as "the decisive role that pesticides play in explaining the causes of the honeybee die-off"), CARI probably felt that having to defend this position faced with the risk of competition from other factors would weaken its arguments<sup>21</sup>. The problem raised explicitly was thus the over- or under-representativity of certain arguments within the platform and the danger that that could create.

*Is it possible to "lock" one's issues, positions, and/or arguments?* This technical question was at the heart of the issue of responsibility for and faithfulness of what was written in the Debategraph and bees collective's exchanges. This question is important in that it raises the question of how to be involved in the public debate. Is an issue, position, or argument the property of the person who puts it forward (a core question for representative democracy) or the "property" of a community of interests? Locking or not locking one's positions relates to two very different conceptions of public debate within the Debategraph: Content is either the reflection of what each protagonist says (insofar as he/she sets him/herself up as a spokesperson) or an each time renewed version of representations of a fragmented world but in which circumstantial convergences can appear, *i.e.*, the fruit of several different agents. The question "Is it possible to 'lock' one's issues, positions, and/or arguments" becomes a question for which it seems at first glance that the answer must be "yes", given the framework of the collective's creation, that is to say, based on representatives of institutions but with the (half successful) presence of two beekeepers. What is more normal than not having what one representative said changed by the others in the course of the free editing by the community of users! All of the bees collectives' members recognised the issue of faithfulness as crucial, especially since the announced opening up of the Debategraph to a broader public spawned a sort of "protectionist" attitude amongst certain participants who may have wanted to remain in control of the debate. It is somewhat in this vein that the possibility of locking their own contributions was useful as a way of limiting the risks of their being reappropriated or changed by others. However, it is interesting to contrast this philosophy with the (less habitual) one that nevertheless guided the Debategraph's designers, to wit, that of creating a sufficiently free and open area of debate to give heterogeneous issues, positions, and arguments a chance to exist and evolve. Seen from this angle (in tune with other wiki-based platforms such as Wikipedia), an issue, position, or argument is the fruit of collective development work, the progress of which can be followed. One functionality of the Debategraph effectively makes it possible to show the successive modifications of a description, complete with the author's name and the date of each change. It appears that such an approach would have made it possible to solve a certain number of problems (see the previous point "How to appear in the graph?"), but would probably have raised new ones, such as the motivation for participating in such an undertaking if, from a management point of view, positions could not be connected easily to stakeholders mobilised explicitly as partners in producing the Debategraph; or the shift in the responsibility for managing the contributions, which is no longer devolved to those who write them, but to the collective (of moderators, correctors, developers, etc.) that is in charge of managing their dissemination within the platform.

---

context of the honeybee die-off problem. This issue is at the heart of CARI's current investigations. It would thus like to share it with the entire community of the graph's users. In contrast, CARI cannot endorse all of the positions presented in this Debategraph, with the exception of those in which it explicitly marks its interest."

<sup>21</sup> Here we find, as Marc Marmorant reminds us, the distinction that Albert Hirschman makes between divisible and indivisible conflicts (Hirschman, 1995): Some people can perceive entering a conflict with the view that the problem can be cut up into separate dimensions (such as in the Debategraph's reasoning) as being dangerous, as this would present their position as a composite of other dimensions and thus liable to be "picked apart".

*How to track the debate?* This question is extremely relevant when one has to try to understand the Debategraph's gradual deployment. Indeed, with use it appeared that for the Debategraph's contributors to remain motivated and involved in the course of the debate, they had to be able to follow the effects of their additions or be able to react to questions that interested them. A certain number of tools outfitted the Debategraph user in this connection. These included the use of an RSS feed that signalled any change occurring in the graph (but this technique proved to be not totally reliable because of frequent breaks in the RSS feed), the activation of an alert message service (an e-mail was sent to the user's e-mail box whenever a change occurred or for each daily or weekly summary), and, finally, consultation of the modifications window directly in the Debategraph's Message Board. Unfortunately, it was not possible to track the changes or search for them by the contributor's name.

*Discussion (in the form of "comments") as a preferred way of presenting issues/positions/arguments.* With use, it was quickly seen that the very source of the platform's added value in the way that it kept track of a controversy, namely, its graphic representation in the form of bubbles connected to each other in star-shaped formations, was not the component that the collective and its public spontaneously used. Indeed, using the "comments" function was the preferred way to contribute information to the Debategraph. The logic of these comments became apparent (after being connected to an element of the Debategraph) in the threads that they formed (as in the case of a question-and-answer forum). Several explanations may be given for this state of affairs. Firstly, more advanced technical skills were required to modify the Debategraph's structure (additions, elimination, or modification of one of its constituents), which definitely hobbled the use of these possibilities. Secondly, and this is something that ties in with the previous point, the comments technique seemed to be all the more mastered if it rested upon habits already acquired on the Web. What is more, we realised that the comment was a preferred way to get people to develop their issues, positions, or arguments, for operating within a context that they mastered (the thread of a discussion) gave people the necessary confidence to share their points of view. It is remarkable, from this standpoint, that positioning an opinion or question directly in the mapper view's tree or in the latter's star representation (the explorer view) was deemed difficult, abstract, and sometimes arbitrary. In contrast, a large number of the collective's members agreed that such views were needed (if only to "structure" the discussion and enable visitors and participants to find their way around it). Fourth and last comes a reason that must not be discounted, namely, the fact that the comments are both a way to take the floor but also a way to give one's statements limited visibility within the Debategraph. Finding an issue/position/argument in a comment is very difficult (the Debategraph's keyword searches do not cover the texts available in the "comments" category), as they do not appear directly in the Debategraph's basic elements. In this case, comments enabled people to be present in the discussion without taking the risk of having too high a profile (and thus safeguard a certain anonymity in the discussion).

### **5.2.3. The "broader" public: resource or scarecrow?**

Although the aim of our Work Package was not to reach out to the public at large (which would require a different set-up and involve a different timetable), it was important to at least begin putting the stakeholders and communicators' work to people who had not participated in the same dynamic to get their initial reactions. The prospect of opening up the mapping to a broader public, that is to say, people and groups of people outside the bees collective but who it was thought might be interested in the context and dynamics of the Debategraph, had different effects on the members of the collective.

For a large proportion of the collective, this prospect and the expectations that it generated were highly valued. This was an opportunity to discuss the perspectives that they had opened up and wanted to share. The limited public participation in the honeybees Debategraph was thus a true disappointment for them. In contrast, the key players from a scientific and technical standpoint who were in direct touch with beekeeping circles were the ones who avoided stoking the Debategraph. They did so either by participating in the meetings but sticking to verbal participation in the discussion (which participation, moreover, was very interesting) (this was the case of FUSAGx), or by gradually withdrawing from the collective (the case of CARI). “Is the public important?” We believe that this question had secondary importance for these two protagonists: Either it was an outside world that had to be sensitised to the stakes riding on the problem as determined by the findings of the scientific research being carried out, or it was far too remote from the stakes and working with the relevant official authorities (in this case European ones) was more important. It is also important to note that these two players, although defending opposite diagnoses of the honeybee die-off problem, agreed on the decisive importance to be given to scientific expertise. This was probably the source of a major lack of understanding of the Debategraph’s philosophy as promoted within the collective, for it led to making the Debategraph the place for popularising work that necessarily had to be done on another level. So, according to FUSAGx’s scientific representative, putting their articles and research findings on the graph would put an end to the debate, or, according to CARI’s representative, “a generalist tool is utopian”: It was indeed utopian to “want to draw up an objective balance sheet on a spontaneous basis linked to the voluntary participation of people having very disparate levels of expertise”. Seen from this last angle, the work that counted was precisely that of creating this objective balance sheet through a close review of the literature. In these two stakeholders’ views, the broader public was composed of either students or the media’s target audience, either a smokescreen or people whom one could persuade, and wrongly so, that they had a role to play or responsibility to take on in the problem’s management. In either case, the matter of controlling the information that was given to the public appeared to be the main issue at stake.

What we learnt about these effects, linked to the possibility of opening up and encouraging the participation of the general public in an Internet platform, on certain stakeholders is that it is difficult (but not impossible) to explore a problem and simultaneously report on it to this broader public. As one of the participants in the bees collective rightly observed,

(...) the matter of the connection with objectivity [was] rather often mistaken for the truth and likewise often considered to be unequivocal. This generated a repeated misunderstanding as to the very subject of the collective’s work: Was it what was happening to honeybees or an exercise in dispelling a controversy? Did the members of the collective find it hard individually (some more than others) to step slightly away from their areas of expertise to enter another research approach conducted outside this field? Or are there specific instructions for reflexion and dialogue that would have enabled the collective to work on developing a Debategraph on honeybees during these three meetings rather than discussing bees most of the time and discussing the Debategraph (independently from honeybees) when the researchers explicitly asked them to? One consequence of this, in my view, was that the elements of discussion about honeybees that were exchanged during the meetings were often more interesting than those that were put on the graph. Wasn’t this a sign that the members of the collective exchanged information between honeybee specialists orally but lost sight of the fact that the goal was to put these elements on the computer platform and to test the feasibility of this transfer? (M. Van der Brempt).

We did indeed have two exercises to carry out together: That of the dynamics of the participants interactions (where the participants had to give their positions and arguments and thus defend them in certain cases) and that of the dynamics that consisted in mobilising both the communicators and the Debategraph as resources to reveal this controversy (and its components) to this broader public. The current research made it possible at most to circumscribe this difficulty and show that that it had to be taken into account if we were to go on to do full-scale public interactive mapping of a controversy.

#### **5.2.4. Guidance and supervision**

As we have pointed out a number of times (see above, p.12) the Debategraph's sustainability depends on the guidance and supervision that accompany it. Within our experiment, this was both our and the communicators' roles.

The communicators had been mobilised for their experience in communicating on complex subjects, experience that had been acquired in the framework of their professions. Their role was ultimately to help evaluate the Debategraph as a means of transmitting and sharing complex information to various publics, but more specifically, during the experiment they were supposed to call attention to the clarity of the information that the protagonists provided (and, if necessary, ask for clarifications) and the resources to mobilise in order to illustrate or document it. The communicators thus had a fundamental, structuring role in the set-up as regards both the Debategraph's form and content. By asking ticklish questions that the stakeholders were not in a position to ask (the protagonists' financing, the researchers' backgrounds and career pathways, etc.), by forcing the protagonists to clarify and hone their positions and arguments, and by pointing out the original issues, they helped, to various extents, to open up the debate, support its dynamics, and promote "reflexivity".

In the beginning of the experiment there were times that they hesitated to step in regarding certain points of the discussion, for they felt that they had no expertise to do so. However, we counted precisely on their "ignorance" of the problems to ensure the discussions' readability, since it became impossible for the protagonists to rely on innuendos that they alone could understand. In forcing the protagonists to make such a shift, the communicators thus encouraged reflexivity within the debate and guaranteed the emergence of issues that would have been absent from the map because they were obvious for the protagonists (but for the protagonists only), in addition to the original issues.

Our role, as the team from Liège University and initiator of the approach, was to set up the specific experimentation that would enable the members of the collective to interact in order to allow the stakes riding on the honeybee die-off to be taken up by the largest number of people. More specifically, it consisted in coordinating the collective around the Debategraph's use by moderating the debate, amongst other things. Besides the guarantee that the presence of a moderator provided, our role was to ensure that everyone understood the discussions by connecting the elements of the debate to each other (via hyperlinks) and to maintain the consistency of the mapping by suggesting that certain "poorly placed" contributions should be moved (with their authors' consent) to places where they would be more relevant, notably by raising the information contained in the comments to a level where they would have more visibility when this seemed necessary to us through the *ad hoc* creation of elements within the Debategraph. We always took care to warn the authors of this, but the problem that we had was that this upset the traceability of remarks, since all additions were then signed by our names rather than those of their actual authors.

### 5.2.5. Mandate

One of the decisive facets for evaluating the social and political pertinence of an Internet discussion platform such as that of the Debategraph is the types of link amongst all of the participants. What are such links made of? There may be many reasons to interact within the Debategraph, but also just as many not to. The question of the brief that the initiators of the honeybees Debategraph had (or that the bees collective gave itself), and which determined in part what would be done with the results, had to be asked.

Some members of the collective saw the dynamics around setting up this honeybees Debategraph as an opportunity, namely, that of exchanging information on other bases so as to make a broader public aware of the stakes riding on the problem, that of saying things differently and hoping to transmit them in order to go beyond conventional, even caricatured, positions. This was probably made possible, for there was no labelled principal belonging to one or the other camps. Instead, the work was initiated by a university team of social scientists. On the other hand, other members of the collective preferred not to get involved precisely because it had not been commissioned by the traditional institutions that would have taken account of the dynamics' results (to advise a minister's first secretary or a European Directorate-General, for example). Seen from this standpoint, "Why bother getting involved in such an approach? It's a waste of time!" In a word, two contrasting positions were pitted against each other during the creation of this Debategraph, namely, a "reflexive" position and a "realistic/utilitarian" position. Of course, the truth of a commitment is always located on the borders of these two positions. Our experiment enabled us to glimpse the risks of these two extremes. Given how the MACOSPOL platform and its project developed, its social and political relevance concerned, as we have already said, a case study, methodology, and *ad hoc* computer resource. These were all elements that also had to have repercussions on practices as well as forming a well-knit set of elements in line with the WP's objectives. Indeed, the honeybees Debategraph experience effectively let us put our collective finger on the following: This social dimension of "repercussions on practices" must be gauged by the quality of the dynamics within the experience, and this quality differs greatly according to the type of brief envisioned.

So, we can describe two separate ways of setting up a Debategraph, depending on the type of brief that it gives itself:

- *A "soft" version of the honeybees Debategraph:* This is a Debategraph that is produced freely in the course of a specific event and open to anyone who wants to share his/her point of view. There is no guarantee *a priori* that the results will be taken into consideration (by some authority) but there is a good chance that a diversity of points of view (including minority points of view) will be encountered. In contrast, this area is very fragile, as it is based on the contributors' "good will" and a huge job of getting people interested and involved.
- *A "hard" version of the honeybees Debategraph:* This is a Debategraph "commissioned" by one of the parties in order to answer a question that it is chewing over and wishes to answer as efficiently as possible. If we take the case of, for example, the establishment of a "quasi parliament", the brief is political: instituting a virtual forum for exchanges so as to bring together all of the stakes riding on the problem, but also an area that has some authority, to the extent that the commissioning authority accepts that the debates that it houses will take an active part in its decision making. From this angle, the area is robust to the extent that it becomes a compulsory crossing point for a party to make itself known (to the political authority in this case) and thus to weigh upon decisions. In

contrast, if the roles and motivations of the commissioning party and moderators are not sufficiently explicit in the platform's users' eyes, there is a risk that the Debategraph will be dominated by presentations of public positions, with very few constructive, reflexive exchanges aimed at mutual learning. In such an eventuality, the Debategraph becomes an umpteenth showcase for the controversy and is not propitious for revealing the duties that each party sets itself (that is to say, the merits that they see in their own practices) and above all their requirements (that is to say, what they require of others to be able to operate)<sup>22</sup>.

In a way, our experiment found itself halfway between these two extremes, as it tried to get unusual points of view to arise in an area marked by primarily institutional positions. This was made possible by the subtlety of some of the protagonists' intervention (which raises the crucial question of choosing the collective's participants). However, the entire set-up was hampered by ambiguity due to its position between these two types of logic, for its mandate was the one that the entire collective gave it, namely, testing the relevance of an exploratory approach specific to the collective, but which could not be tested for use by a broader public to full effect given the task that WP6 had given itself, that is, working first of all with and for the stakeholders.

## 6. Conclusions

To wrap up this report, we shall try to answer the question of the added value of a mapping approach that brings together all the protagonists of a controversy. This will give us the opportunity to take up each of the key points of our analysis.

What happened around the Debategraph (its outcome) is as important as its content (its output). The tool was effectively able to allow only partially for the set-up's impact on the collective. Rather than envisioning the tool's impact on its users only, we shall thus consider the entire set-up's impact on the members of the collective and vice versa.

### 6.1. The set-up's effects on the collective

As we have already stressed, the set-up gave rise to original questions (especially "matters of concern") – besides the more "conventional" ones – that would never have resulted from bringing together the stakeholders only. We have stressed the key role played by the communicators who pinpointed them. The Debategraph was able to reveal this for most of the questions that cropped up, even though, at this stage, many of them have yet to be fleshed out with positions and arguments. The set-up thus managed to reflect issues that, although examined little by the scientific community, were relevant outside this community, *e.g.*, emotions and the place reserved for emotions both within and outside scientific circles.

The set-up also led the collective to question scientific activity. Some assumptions and *a priori* regarding science were challenged and many aspects of the way scientific activity operates were called into question: The scientist's claimed lack of self interest, the relationship to be maintained with the Truth with a capital "T", the financing of research, the researchers' occupational pathways, the discussion of scientific findings, self-censorship, science's duties and

---

<sup>22</sup> For more about this distinction between duties and requirements as described by Isabelle Stengers, we refer the reader to one of her reference publications: Stengers, I. (2006). La vierge et le neutrino. Les scientifiques dans la tourmente. Paris, Les empêcheurs de penser en rond.

requirements, the relationship with empirical knowledge, and the dissemination of scientific literature are all aspects that came in for discussion. Whilst some of these points were mapped, most of them were not developed within the Debategraph. Does this mean that the tool was unable to allow for them? In part, yes, but we also think that the stakeholders could not defend some attitudes publicly, as this would have put them in a ticklish situation, and consequently it might have been our role, as moderators, to get these tricky questions into the map (when the communicators did not do so). We must also point out that the communicators' contributions sometimes triggered thought, even doubt, amongst the protagonists by making them quickly feel the limits of their knowledge. The same applies to some of the beekeepers' comments, which, by adding nuances or alternatives to the scientists' apparently definitive answers, helped to keep the debate going.

According to the collective's members, the Debategraph definitely has potential in each of their areas of activity.

- For science, it could be a way to improve the dissemination of research results over the conventional media, to make known science's duties and requirements, and to have results discussed via the sharing and discussion of publications.
- For the media, the Debategraph could help journalists to investigate a controversy, for it makes it possible to identify the knots of a problem whilst cutting down the number of threads that must be explored.
- For education (general academics and environmental education), the Debategraph could help to develop a critical mind and foster the development of abilities to handle controversial situations.
- From the point of view of civics, finally, just as the Debategraph offers an area in which the stakeholders can air their positions publicly and be heard, it could also enable people to take account of field observations, know-how, and empirical knowledge, that is, aspects that scientific activity often ignores, or even removes from the equation.

However, we are clearly talking about its potential. The conditions that must be established to fulfil this potential, so that it can offer each of the participants real added value, have still to be determined.

Our experiment unfortunately triggered little enthusiasm amongst beekeepers. We were unable to provide the necessary conditions to enable them to adopt the tool and seize the opportunity to express themselves. However, the few contributions that beekeepers made to the debate and the reactions that they generated showed that putting different types of information on an equal footing and then comparing and contrasting this information were very relevant.

The tool obviously could not replace the journalist's field investigations, and this was not its aim. However, at the close of our experiment we feel that it can help journalists to prepare their investigative work by helping to narrow down the avenues to explore. Everything obviously depends on the content of the debate (is it sufficiently fleshed out?) and the moderator's ability to ensure that the full range of points of view is represent. Whilst our map was too sketchy to support writing an article on it, it already enabled journalists to identify the avenues to delve deeper into or, on the contrary, to drop. Rapid identification of the key issues is thus an added value of the Debategraph for the investigative journalist.

None of the above-mentioned types of potential for science could truly be tested. The Debategraph was indeed used to disseminate scientific studies' results, but we have no data on how these studies were received and interpreted by the public at large. We nevertheless noted, as we already stressed, that the scientific literature is highly opaque, thereby requiring that intermediaries should be instated as relays and translators between the two worlds.

Finally we come to its educational potential. The Debategraph is not a teaching tool in the sense of being a unilateral vector of expert knowledge for delivery to the people. On the contrary, the aim is to encourage mutual learning. The Debategraph's educational usefulness resides much more in the fact that it can help develop useful abilities for tackling controversial issues. It might be used more effectively for educational purposes in a course on the study of controversy such as those developed by the various members of the MACOSPOL consortium.

## 6.2. The collective's effects on the set-up

We have already stressed that the collective likewise influenced the way the Debategraph worked. Without going back to the details, let us simply recall that when the graph was opened up to the public, the stakeholders wanted to be able to lock their remarks so as to be able to remain in control over the mapping and out of fear of seeing themselves saddled with remarks that they did not make. We must also recall that to escape the constraints created by the Debategraph's structure (regarding the grammar of elements and editing rules), the users preferred to interact through comments, which are also easier to edit. This forced the moderator to be more attentive, for whilst these exchanges were often full of information, this information was also less visible and required additional work to be noticed. Finally, out of concern for the future user, the collective opted for a structure that attested to a certain logic subtending the controversy's exploration that could orient the user's perceptions thereof.

If we had to make some recommendations, we should stress the fact that one can first of all notice a little paradox: Whereas the users found the Debategraph's editing menu too exacting and preferred to use the "comments" function, the structure that the tool imposed on the debate was also advantageous compared with other forms of debate such as forums, which, whilst they fostered exchange, had a tendency in the users' opinions to lack order and structure. From the standpoint of its form, then, it seems that the Debategraph's technical possibilities for interaction must be improved, since, as Marc Mormont observed, the individuals participated better when they were interacting rather than writing. The editing of new elements should thus take more inspiration from the comments' logic, without for all that turning the Debategraph into a chat room. If the interactions attracted our attention so much, that is because, as we have shown, they were essential for the Debategraph to function, not only in terms of getting the contributors to participate, but also in terms of content, since they were propitious for reflexion and reflexivity, and dynamics, since they helped to keep up the debate and/or keep it open. That is why we it seems so important to encourage them, especially from a technical standpoint.

All of this enables us to conclude that the Debategraph is socially relevant, whether to explore or to allow for and report on a problem, provided that it takes place in the right set-up. Let us recall that putting the tools that make up the platform in context is decisive for determining their effectiveness<sup>23</sup>.

## 7. References

- Hansotte, M. (2004). Les intelligences citoyennes, Comment se prend et s'invente la parole collective. Brussels, Éditions de Boeck Université.
- Hirschman, A. O. (1995). Des conflits sociaux comme piliers de la société démocratique de marché. Un certain penchant à l'autosubversion. Paris, Fayart: 337-362.

---

<sup>23</sup> So, for example, if our experiment had been commissioned by the government, it would definitely have produced very different outcomes.

- Jeantet, A., H. Tiger, et al. (1996). La coordination par les objets dans les équipes intégrés de conception de produit. Coopération et Conception. G. de Terssac and E. Friedberg. Paris, Octares Editions: 87-100.
- Latour, B. (2006). Changer de société ~ Refaire de la sociologie. Paris, La Découverte.
- Maxim, L. and J. P. van der Sluijs (2007). "Uncertainty: Cause or effect of stakeholders' debates? Analysis of a case study: The risk for honeybees of the insecticide Gaucho<sup>®</sup>." Science of the Total Environment **376**: 1-17.
- Mélar, F., Ed. (2008). Écologisation: Objets et concepts intermédiaires. Brussels, P.I.E. Peter-Lang.
- Stengers, I. (2006). La vierge et le neutrino. Les scientifiques dans la tourmente. Paris, Les empêcheurs de penser en rond.

## 8. Annexes

### 8.1. Organisation of the three workshops

To guide the collective's use of the Debategraph, we punctuated our experiment with three workshops held at the end of April, at the end of May, and at the end of June, that is at the start, midway through, and at the end of the experiment, respectively.

Each of these workshops played a specific role in the experiment. The first one announced the experiment. It was an opportunity for the participants to meet each other (even though the stakeholders already knew each other), but also an opportunity to reassert the experiment's aims and to clarify everyone's roles (the collective consisted of three distinct groups of people according to the role that they had to play in the experimental set-up<sup>24</sup>). This first workshop was also designed to get the issues for collective discussion and public sharing via the Debategraph technique to surface, using the brainstorming fresco and metaplan techniques<sup>25</sup>, and to show the participants in a plenary session how to use this tool. We then took advantage of the one-month interval before the second workshop to give each of the participants individual guidance and to moderate the debate area, as the participants were supposed to use this period to flesh out the map generated from what had come out of this first meeting.

The second workshop marked a major change for the collective, for in its wake the mapping was going to be opened up to a broader public. The aims of this second meeting were thus to take stock collectively of the first month of use of the Debategraph (Had the participants had problems during this first utilisation period? Were any changes (in the structure and/or content) required?), but above all to decide how to open up the mapping to other publics (To whom should the mapping be opened up? How should these publics be contacted? What moderating rules should be established? and so on). Based on a list of contact that we had drawn up from the participants' respective networks of contacts, we then invited people likely to be interested in our mapping exercise to join us in the debating area throughout the month of June, although this time we could not provide them with any individual or collective guidance in the tool's use.

Finally, the last workshop marked the end of the experiment. Its aims were to take stock of opening up the Debategraph to a broader public (Did that create a difference for the collective's members? What importance did the public have for each of them?) and to review the entire experiment in order to discuss the lessons that each participant drew from it (reappropriation, added value, etc.)

---

<sup>24</sup> See above, p.5.

<sup>25</sup> See above, p.6.

## 8.2. Alphabetical list of the participants<sup>26</sup>

José ARTUS: Beekeeper\*

Etienne BRUNEAU: *Centre Apicole de Recherche et d'Information* (Apicultural Research and Information Centre (CARI))\*

Jérôme COGNIAUX: *PHYTOFAR* (Belgian association of plant protection product manufacturers)

Pierre COULON: Belgian Museum of Natural History

Alain DE BRUYN: *Fédération Wallonne de l'Agriculture* (Walloon Federation of Agriculture) (FWA)

Michel DE PROFT: *Centre wallon de Recherches Agronomiques* (Walloon Agricultural Research Centre) (CRA-W)

Henri DUPUIS: Journalist (Liège University/Tempora)

Philippe LAMOTTE: Independent journalist

Bach Kim NGUYEN: Researcher in the Functional and Evolutionary Entomology Unit of Gembloux Agricultural College (FUSAGx)

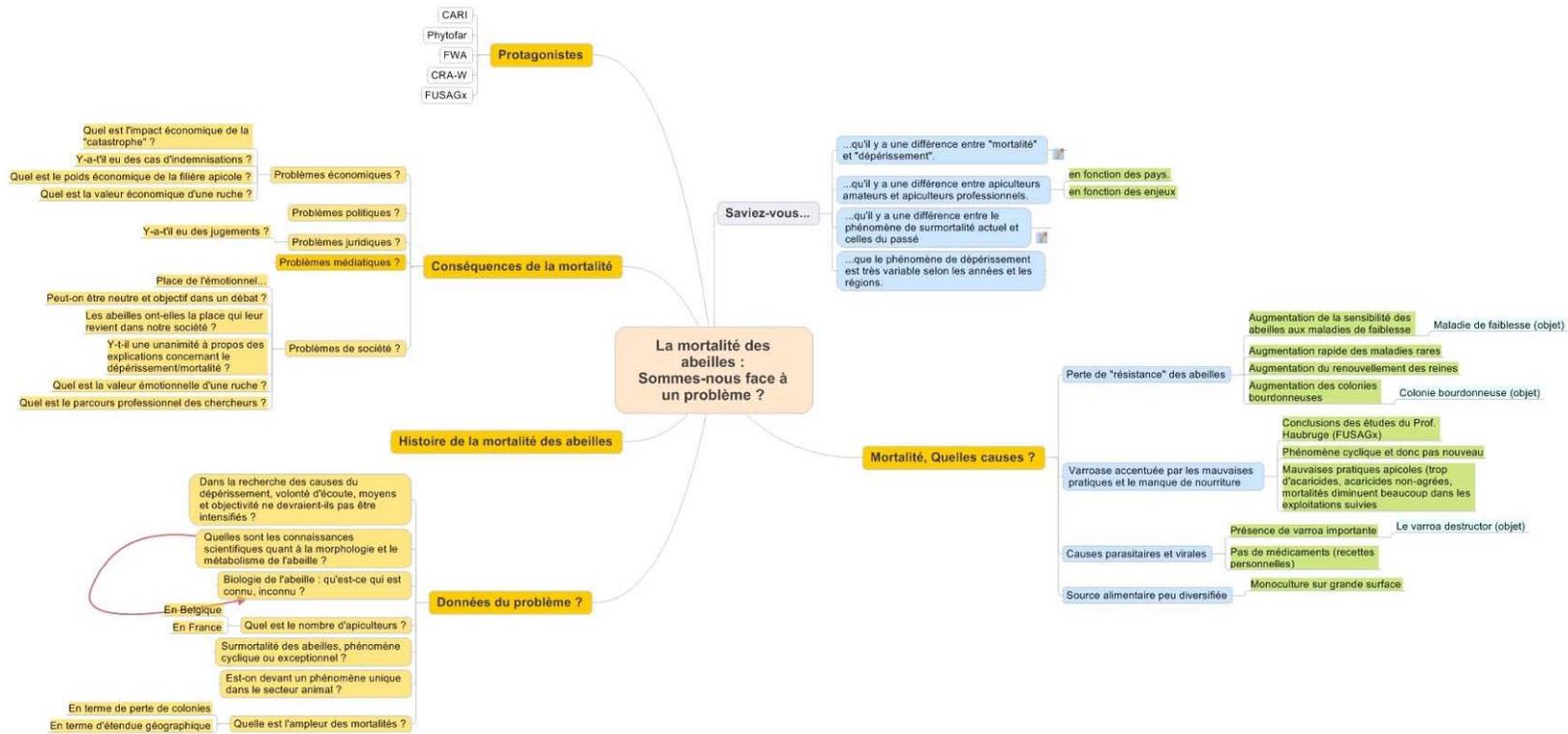
Myriam VAN DER BREMPT: Interfaces Centre – *Facultés Universitaires Notre Dame de la Paix de Namur* (Our Lady of Peace University of Namur) (FUNDP)

Claude VINCINAUX: Former Head of R&D at Bayer, France (now retired)

---

<sup>26</sup> The participants marked by an asterisk (\*) dropped out in the course of the experiment.

### 8.3. Debategraph's structure



## 8.4. Explorer View

Debategraph map: La mortalité des abeilles : Sommes-nous face à un problème ? - Mozilla Firefox

http://debategraph.org/flash/fv.aspx?r=16299

Mortalité, quelles causes?

Comment utiliser le Debategraph?

Glossaire et ressources

**La mortalité des abeilles : Sommes-nous face à un problème ?**

Conséquences de la mortalité

Saviez-vous ...

Données du problème ?

Protagonistes

Related maps

Click spheres to explore  
Click arrows to rate

Transfert des données depuis debategraph.org...

OFF Navicrawler zotero

démarrer

Debategraph home - ... Debategraph viewing... Debategraph map: La...

FR 16:04

## 8.5. Mapper View

The screenshot displays the Debategraph Mapper View interface. The browser window title is "Debategraph viewing page - Mozilla Firefox" and the URL is "http://debategraph.org/MapView.aspx".

**Navigation and Search:** The top navigation bar includes "Session", "Settings", "Navigate", "Edit", "Community", and "Search >". A search box contains "(Search terms)".

**Left Panel (Outline):** A tree view shows the structure of the debate. The root node is "La mortalité des abeilles : Sommes-nous face à un problème ?". Subsequent levels include "Conséquences de la mortalité", "Problèmes de société", "Faire dialoguer des praticiens et des experts", "Impact économique pour l'agriculture ?", "Problèmes juridiques", and "Problèmes médiatiques".

**Central Map Area:** This area visualizes the relationships between nodes. Nodes are represented by colored boxes with text and IDs. Arrows indicate relationships: "Arises from" (orange arrow) and "Responds to" (blue arrow).
 

- Node #16299 (Orange):** "La mortalité des abeilles : Sommes-nous face à un problème ?". Text: "Bienvenue sur la cartographie sur la problématique abeille en Wallonie. Cette cartographie est réalisée dans le cadre du projet européen MACOSPOL."
- Node #16451 (Orange):** "Conséquences de la mortalité". Text: "Quelles sont les conséquences des mortalités d'abeilles domestiques, mais aussi les problèmes et/ou les questions qu'elles font émerger à différents niveaux (économique, social, politique, etc.)?"
- Node #16458 (Orange):** "Problèmes de société".
- Node #20384 (Orange):** "Faire dialoguer des praticiens et des experts". Text: "Pour faire évoluer la situation des abeilles, les apiculteurs et les scientifiques, c'est-à-dire des praticiens et des experts (théoriciens) doivent pouvoir se parler et être entendus les uns par les autres."
- Node #20385 (Blue):** "Il ne faut pas minimiser la difficulté de ce dialogue". Text: "Elle se rencontre chaque fois que 'le terrain' est confronté à 'la science', dans quelque domaine que ce soit."
- Node #20387 (Green):** "D'égal à égal ? Ce n'est pas évident...". Text: "La manière de communiquer..."

**Right Panel (Debate Dashboard):**

- Welcome:** "Welcome Annick Melchior. This is La mortalité des abeilles : Sommes-nous face à un problème ? and your editing status is EDITOR."
- Select action:** Buttons for "Edit", "Cite", "Comment", "Rate".
- Select view:** A row of buttons numbered 1 to 5, with button 4 selected.
- Reload at:** Buttons for "Map", "Selected", "Back", "Up".
- Map key:** A legend for node types: Map (orange), Issue (orange), Position (blue), Component (light blue), SupportiveArgument (green), OpposingArgument (red), PartArgument (grey), ArgumentGroup (grey), Protagonist (light green), Repertoire (light blue), ScenarioComparison (pink), Cross-relation types (orange).
- Map events:** A section for "Show message" and "Message".

**Bottom Bar:** The Windows taskbar shows the "démarrer" button, several open windows (including "Debategraph home", "Debategraph viewing...", and "Debategraph map: La..."), and the system tray with the time "16:07".