



CIVISTI

**Collaborative project on Blue Sky Research on Emerging Issues
Affecting European S&T**



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Preface

The CIVISTI project resulted from the idea that citizen consultations are valuable tools to identify new relevant research topics. By listening to citizen's concerns and expectations for future developments in the fields of science, technology and innovation, policy makers are given the opportunity to match the European research agenda to emerging issues among the public.

The CIVISTI project is financed by the European commission and involves seven different European countries (Denmark, Flanders (Belgium), Malta, Hungary, Finland, Bulgaria and Austria).

During the weekend of 16-17 May 2009, the Institute Society and Technology of the Flemish Parliament organized the first citizen panel within the framework of the trans-European CIVISTI project. In each country, the citizen panel was prompted in a structured way to develop their own visions and concerns for the future. A total of 21 Flemish citizens volunteered to share their visions and fears with regards to the future.

These visions were be combined with corresponding visions from citizen panels in the 6 other countries and evaluated by a group of experts and stakeholders from the perspective of the European research programme. This was done during the expert stakeholder workshop on 14-16 June in Sofia, Bulgaria. Through an interactive and strictly facilitated process, the expert panel identified potential new research areas in science and technology. The basis for this were the citizens visions.

On the 2nd of October 2010, the Flemish citizens panel reassembled to formulate their opinion on the experts recommendations. The goal of this meeting was twofold: A validation of the recommendations based on the Flemish visions, and a prioritisation of the recommendations. The output of this meeting is that most recommendations are seen as desirable and relatively effective in realising the vision. The Flemish panel also chose a clear top 7 for the recommendations. Most recommendations in the top 7 are linked to ageing and disabilities, ecology, agriculture and citizens participation.

We would like to thank the participants, whose input is of great importance for the success of the CIVISTI project, for their enthusiasm and cooperation.

Introduction



The second Flemish CIVISTI citizen consultation took place on Saturday the 2nd of October 2010. All citizens that participated in the first CIVISTI citizen participation had been invited by mail and by telephone. 20 citizens out of 21 agreed on beforehand to attend CC2. The participants all received two information packages with reading material so that they could prepare themselves for CC2. In the week before CC2, three citizens cancelled their attendance for health or job-related reasons. The 2nd of October, we received two messages from two other participants who were also not able to make it to the meeting due to illness. Eventually, 11 participants showed up. 4 participants did not notify us from their absence. Due to the cancellations, the male/females ratio was slightly increased compared to CC1. 7 out of 11 participants of CC2 were older than 50 as mostly the younger participants did not show up. The educational level of the group was well balanced.

Name	Gender	Employment
Daniel Schryvers	male	ICT
Danielle Brepoels	female	entrepreneur
Guido Wolff	male	postman
Guy Dumont	male	retired
Heidi Verbeeck	female	general clerk
Marie-Louise Vandenberg	female	retired
Nico Laridon	male	head of logistics
Patrick Smeulders	male	general clerk
Sven Van der Cruyssen	male	ICT
Tom Laperre	male	private banker
Vicky Bohor	female	general clerk

Course of the day.

All participants arrived between 9.30 and 10 am and appeared happy to see each other again. The project leader gave a short introduction on the CIVISTI project. A Flemish science policy expert that had attended the expert/stakeholder workshop then told the citizens how he experienced his participation in CIVISTI and what working with the visions of citizens meant to him. The citizens reacted very positively on his lively presentation and asked some questions on European policy making afterwards. The facilitator explained the course of the day and to trigger the memory of the participants, each participant was asked to tell the group what had struck him/her the most during CC1.

The morning session took off; the participants were divided in groups of two times four and one time three. The facilitators each time presented the national vision and the corresponding recommendation. Then the citizens were allowed to assign a score individually to the three criteria faithfulness, effectiveness and desirability and discussed their opinions in the group. When all the five recommendations that resulted from Flemish visions were validated, there was a short plenary session to discuss the main findings. In the afternoon, the 25 recommendations that did not result from Flemish visions were presented by the facilitator. Next, an open market space was made by hanging the recommendations on the wall, each time in groups of six. In each round, each participant had to walk around and read all 6 or 7 recommendations. Some citizens asked questions when the recommendation was not entirely clear to them. On the papers with the recommendations, the participants could note down what they thought was positive, negative or interesting about the recommendation. They also carried a personal scoring form on which they could indicate if they found the recommendations important or not or felt neutral about it. This individual form helped them later on to remember what recommendations they liked most and deserved a vote. Afterwards, they got seven stickers to vote for the recommendations that they found the most important. They also got 2 stickers to indicate which recommendation they did not find important at all. Two participants then volunteered to present the top 7 recommendations to the other participants as if they were working for the European Commission and defending their own policy proposals using the arguments written down on the recommendations. Finally, the questionnaire was filled in and the participants were rewarded for their good work with a reception.

In general, the citizens worked hard but also enjoyed themselves. The heavier workload of CC2 and the sometimes difficult content of the recommendations did not seem to bother them at all.

Validation

- **Recommendation 4: Plug and play communication: development of standards for smart gadgets**

Summary of the recommendation

To support the vision of a smart society and reduce the risk of wasting resources standardisation of smart gadgets are needed. Standardisation shall ensure a minimum standard of security and privacy and that smart gadgets can communicate with each other regardless brand or type.

Summary of the vision the recommendation was derived from

12. *Smart society.*

Everybody can afford to be surrounded by a smart environment equipped with robotics and technologies that simplify the organisation of everyday life.

Validation criteria

- **Faithfulness**

	Bull's eye	Reflects strongly	Partly yes, partly no	Reflects weakly	Does not reflect at all
Number of votes	3	5	3	0	0

The majority of the citizens thought that the recommendation was partly to completely loyal to the vision. Positive aspects were that the experts paid attention to safety and privacy issues in the recommendation. The recommendation was received as already with a very practical focus while perhaps some more research should be invested in the energy efficiency and usefulness of these gadgets. However, the citizens believed that some important aspects of the visions were missing such as the social dimension and the application of renewable energy.

- **Effectiveness**

	Most important instrument	One of the important instruments	May or may not be important	Does not contribute to make the vision come true	Contra-productive
Number of votes	4	5	2	0	0

The recommendation was received by most of the citizens as an essential instrument to be able to install a well functioning , safe and ethical smart environment. They saw the necessity

of a regulation at the European level. Some citizens thought that other instruments were necessary too to realise the vision like further research into new applications and it would be a pity to only derive this recommendation from the vision. Others were not convinced of standardisation as a key to a successful smart environment and referred to the successful Apple business story.

Desirability

	Highly desirable	Partly desirable	Neutral	Partly undesirable	Undesirable
Number of votes	5	5	0	1	0

The citizens found the recommendation highly to partly desirable. They were in favour of the standardisation because it would enable them to mix equipment from different producers and it would reduce the amount of electronic waste. They did not find it desirable that the standardisation would mean that their freedom of choice became limited or that producers were bound by design limitations. Attention should be paid to the fact that both producers and consumers win from the standardisation and that it also results in a gain of time. A few citizens did not find the recommendation desirable and warned that this standardisation would hamper innovation, increase government control and augment the risk of hacking.

This is the recommendation that got the best validation over the two criteria faithfulness and effectiveness.

- **Recommendation 5: Foresight and research to explore sustainable options of decentralized energy production systems and the resolution of energy related conflicts**

Summary of the recommendation

Implement foresight studies* and research in the governance challenges related to different scales and levels of energy production and distribution in order to develop new options for decentralised, sustainable energy production and to avoid future conflicts.

Summary of the vision the recommendation was derived from

13. Endless energy (independence of fossil fuels. Local and environmentally friendly production of energy).

A world without the need for fossil fuels. Every home has its own energy-generating system (solar cells, wind turbines, home trainers,...). Solar energy is stored and used for heating. Cars run on electricity with batteries that can be recharged at home.

Validation criteria

▪ **Faithfulness**

	Bull's eye	Reflects strongly	Partly yes, partly no	Reflects weakly	Does not reflect at all
Number of votes	5	1	3	2	0

With regard to the criterion faithfulness, the citizens could roughly be divided in two groups. One half thought that the recommendation was very loyal to the vision while the other half thought the opposite. The latter argued that in the original vision, people produced their own energy on a community-based or individual level to avoid dependency of national or international energy producers and distributors. In that way, energy would be affordable for everyone. In the recommendation, the existing electricity distribution network is adapted to decentralized energy production and (inter)national distributors/producers are still in play.

▪ **Effectiveness**

	Most important instrument	One of the important instruments	May or may not be important	Does not contribute to make the vision come true	Contraproductive
Number of votes	1	5	5	0	0

The recommendation is considered as the most important instrument or one of the important instruments to make the vision come true. Some citizens are convinced that a national approach of energy production is better than an individual approach. They miss some research aspects in the recommendation: for example the development of new technologies to produce and stock renewable energy, studies of the potential consequences and risks of decentralized energy production for the population,... Others fear that the recommendation will not necessarily make their particular vision come true although they understand that their vision has to be realized in a gradual manner. They would prefer a reformulation of the recommendation to better suit the vision.

Desirability

	Highly desirable	Partly desirable	Neutral	Partly undesirable	Undesirable
Number of votes	2	6	2	1	0

The recommendation is partly or highly desirable: there is an urgent need for an investigation on how decentralized energy production can be organized and a need for regulation at a European level. The recommendation can be seen as an intermediary step necessary to realize the vision.

The recommendation is less desirable because the big players in the energy market keep on pulling the strings. One person thought it might be better to investigate how the costs of the current electricity network can be reduced instead of investing in decentralized energy production.

- **Recommendation 6: ‘Platform of the future of work’ at a local, regional and global level should be considered within upcoming calls of the SSH program.**

Summary of the recommendation

Establish a platform within the upcoming calls in the SSH program about work at local, regional and global level. Including research about redefining work, ‘flexicurity’, work-life balance, basic income, new jobs, and social responsibility. This platform should involve citizen participation.

Summary of the vision the recommendation was derived from

17. Where there is a will, there is work (Employment for all. A vision about the balance between work and private life, voluntary work and full employment).

By redistribution of work, everybody has a job and can choose their number of working hours according to their own family/health situation. Voluntary work is rewarded and you get a fixed wage when you stay home to take care of the children.

Validation criteria

- **Faithfulness**

	Bull’s eye	Reflects strongly	Partly yes, partly no	Reflects weakly	Does not reflect at all
Number of votes	3	6	1	1	0

The majority of the citizens acknowledges that the recommendation reflects the vision very well and is innovative because of the intention to research how voluntary work can be

rewarded in the future. The vision did however not only focus on niche groups but on the needs of the entire population and therefore the citizens would also like that the following aspects are investigated too:

- Differences in wages between European countries and the way that effects immigration
- The working potential of and the high unemployment among immigrants
- The position of housewives/parents with young children that would like to stay home to care for the children
- Pensions

▪ **Effectiveness**

	Most important instrument	One of the important instruments	May or may not be important	Does not contribute to make the vision come true	Contraproductive
Number of votes	4	5	2	0	0

The majority thought it was a good idea to perform a thorough study first before implementing any measures. One person thought that a platform was not the ideal instrument and that the knowledge that already exists within research groups, trade unions, NGO's etc.. should be combined. That citizen also doubted the value of a citizen panel for such an issue because of the fear that the people would only suggest solutions that are not economically feasible or profitable.

Desirability

	Highly desirable	Partly desirable	Neutral	Partly undesirable	Undesirable
Number of votes	3	4	3	1	0

For some citizens, the recommendation is desirable because there is a need for more flexible ways of working and a transparent regulation. Others would like to see the recommendation opened up for a larger group of people. Some are convinced that this recommendation has only a low priority and that there is a danger that voluntary work will disappear as such.

- **Recommendation 7: Stimulate research to expand /augment the human sensory capabilities.**

Summary of the recommendation

Promote cutting-edge research on bionics and machine-human interface to expanding human sensory capabilities. Main focus on the technological prospective but also focus on the knowledge generated by the recent studies with interdisciplinary research in psychology, ethics and philosophy.

Summary of the vision the recommendation was derived from

19. Make me human! (A dream about health and wellness, technology and ethics).

Improvement of the quality of life using technologies that focus on health, food quality, smart clothing, leisure time. Physicians also pay attention to ethical aspects of medical matters.

Validation criteria

- **Faithfulness**

	Bull’s eye	Reflects strongly	Partly yes, partly no	Reflects weakly	Does not reflect at all
Number of votes	4	0	4	3	0

A minority of the participants recognize the vision in the recommendation but agrees that the recommendation takes the application of bionics much further than the vision (some say in a frightening way). Most find that the recommendation poorly reflects the vision due to the fact that the vision states “make me human” and not “make me human with superpowers”. There is no attention for the protection of human dignity in the recommendation.

- **Effectiveness**

	Most important instrument	One of the important instruments	May or may not be important	Does not contribute to make the vision come true	Contraproductive
Number of votes	0	6	2	3	0

The technology that will be developed through the recommendation might also help disabled people and in that way will help the vision to come true. However, some fear the creation of bionic “monsters” and think that it would be better to make an ethical/psychological approach of the technology first.

Desirability

	Highly desirable	Partly desirable	Neutral	Partly undesirable	Undesirable
Number of votes	0	3	5	2	1

The recommendation would only be desirable if the technology would be used to improve the life quality of disabled people. Freedom of choice should be guaranteed at all times. The recommendation has low priority if it would be used to create super-humans. Some do not see this as something European research needs to focus on.

- **Recommendation 8: Enhance the ethical reflection on science based organic and “bionic” production**

Summary of the recommendation

The ethical aspects of development of radically new genetic and technological treatments should be systematically approached by ethical research councils and advisory bodies at a European level. Ethical interdisciplinary research programmes should be designed.

Summary of the vision the recommendation was derived from

19. Make me human! (A dream about health and wellness, technology and ethics).

Improvement of the quality of life using technologies that focus on health, food quality, smart clothing, leisure time. Physicians also pay attention to ethical aspects of medical matters.

Validation criteria

- **Faithfulness**

	Bull’s eye	Reflects strongly	Partly yes, partly no	Reflects weakly	Does not reflect at all
Number of votes	7	0	3	1	0

Most of the participants considered the recommendation as a very important aspect of the vision. A minority thought that the experts could have done a better job even though they had the right intentions.

▪ **Effectiveness**

	Most important instrument	One of the important instruments	May or may not be important	Does not contribute to make the vision come true	Contraproductive
Number of votes	2	6	3	0	0

Most think that this recommendation will be the most important or one of the important instruments to realise the vision. Some however disagree and say that the study also need to result in clear regulations to ensure the right use of the technology as meant in the vision.

Desirability

	Highly desirable	Partly desirable	Neutral	Partly undesirable	Undesirable
Number of votes	9	2	0	0	0

This recommendation was designated highly desirable by an impressive majority of the participants. Some felt that the regulation resulting from the research could not interfere with the freedom of choice being too strict.

Prioritisation

Below is the prioritisation of the 25 recommendations that were not derived from Flemish visions. Each citizen had 7 votes. Due to an ex-aequo (three recommendations got 5 votes), we ended up with a top 7 (shown in green and bold) instead of a top 5.

Recommendation	Number of votes
2. Tools for disabled people.	7
9. Optimization of urban space: towards dense European eco-cities.	6
12. Increase direct democracy through e-voting.	6
17. Social innovations for aging societies are needed.	6
10. From CAP to European Agricultural policy: back to a gardening tradition.	5
16. Innovative participatory structures.	5
20. Select or develop plants and techniques for areas with extreme climate conditions.	5
1. Humanistic research to explore what dignity during the dying process means to contemporary Europeans.	4
18. Promote technical and social innovations that can enhance people's access to and use of public transportation.	4
21. Policies towards immigrants and refugees appreciation.	4
27. Encourage alumni work in corporate governance*.	4
15. Agreements with farmers organizations on avoiding antibiotics and hormones.	3
26. Develop effective urban infrastructures supporting a multigenerational lifestyle.	3
28. Worldwide collaboration on space technology.	3
13. Recognition policy.	2
19. Develop avatars that are able to act as a remote physical representation of myself.	2
23. Project for Finnish best practices to be disseminated and used in other countries.	2
25. European integrated policies on sharing work.	2
30. Stimulate research on human-machine interfaces.	2
11. Research to overcome the tension between the use of highly complex materials in products and their recyclability.	1
29. Project to explore global governance.	1
3. European TV – unity in diversity. A permanent lab for experimentation on building and expressing identity (IdenTVLab).	0
14. Develop Sofia into an eco-model for European capitals.	0

22. Foster the use of bio-refineries.	0
24. Go and re-appropriate countryside!	0

The recommendations that ended up in the top 7 can be divided in four major themes:

- Ageing and disabilities
- Ecology
- Agriculture
- Citizen participation

We collected the following arguments for these top 7:

2. Tools for disabled people.

This recommendation was seen in a broader perspective: do not only develop tools for disabled people, but extend this to all people who have impaired bodily functions due to illness, ageing,...so that everyone is allowed to enjoy life in all its aspects.

9. Optimization of urban space: towards dense European eco-cities.

Comment from citizens: This can be done by using citizens participation processes. As the population grows, we need different ways of living in densely populated areas without neglecting ecological aspects.

12. Increase direct democracy through e-voting.

Comment from citizens: E-voting should guarantee privacy. E-voting means saving of time and resources. The citizens also see it as an opportunity to be consulted more often by policy makers.

17. Social innovations for aging societies are needed.

Comment from citizens: Most of the citizens shared the concern on how their life would look like when they were retired. They still want to be considered valuable for the society. They thought that it would be a good idea to stimulate students to do their PhD on this subject. Worldwide experiences on this should be collected.

10. From CAP to European Agricultural policy: back to a gardening tradition.

Comment from citizens: The use of regional products should be promoted. It is necessary to look European wide which crops are most suitable for which regions so that each region can maximize its yield and profit from a flourishing agriculture. It can also be an opportunity to create jobs.

16. Innovative participatory structures.

Comment from citizens: Innovative participatory structures are a very efficient way of collecting citizens opinions. In this way, the democracy is strengthened and less dependent on lobbying.

20. Select or develop plants and techniques for areas with extreme climate conditions.

Comment from citizens: This would be very useful to counter the effects of global warming. It can also create opportunities for the food production in developing countries with extreme climates. However, attention should be paid to the preservation of biodiversity.