



Institute Society & Technology



The Institute Society and Technology is an autonomous organization joined to the Flemish Parliament.

The Institute Society and Technology shows the interaction between society, science, and technology, by promoting independent research, by fostering the public debate and by organizing a crystal-clear communication.

The Institute makes recommendations to the members of the Flemish Parliament and informs target groups and the general public.

Institute Society and Technology, **participatory and consultative**

What is the key role of the **Institute Society and Technology**?

'Technology assessment'

Scientific and technological developments sometimes raise more questions than they answer. The Institute Society and Technology aims at making these questions more clear and interprets the developments, in the interest of our society and its policy-makers... That is what we call 'technology assessment' (TA).

'Participatory'

In the modern versions of TA research, the points of view of all the actors involved are taken into account: not only the experts but also companies, environmental and consumer organizations, authorities, and citizens, etc. By doing so, not only people who play an active part in the development and implementation of new technology are being heard, but also those who will suffer the consequences of its introduction. This far-reaching involvement produces more reliable and solid results and recommendations... that is what we call 'participatory technology assessment'.

Advice for tomorrow's society

Participatory technology assessment

- > contributes to a public and political opinion-making;
- > creates new knowledge on the common ground between science, technology, and society;
- > aims at providing information and making recommendations to the authorities and the public;
- > is essentially future-oriented.



- > Which opportunities does a new technology offer?
- > Which risks are involved with a certain new technology?
- > Which problems does the new technology contribute to resolve?
- > Which are the consequences of the new technology from a social, economic, ethical, medical, cultural, ecological... perspective?
- > Is there any demand for the new technology?
- > How does the general public think about the new technology?
- > Who will be the winners and the losers when the new technology is being introduced?
- > How to fit in the new technology in such a way as to maximize its social benefits?
- > In which stage of development is the new technology?
- > ...

"Participatory TA is an excellent training with an eye to better policy decisions"

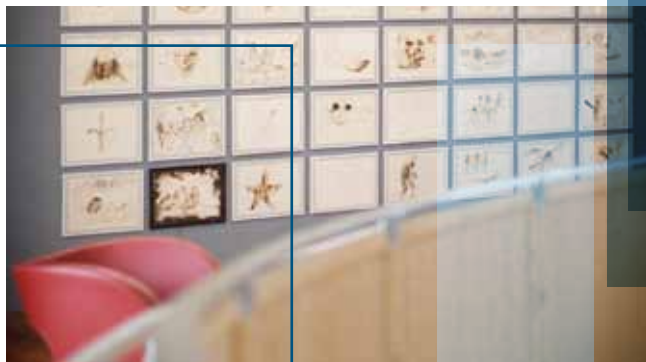
Robby Berloznik,
director of the Institute Society and Technology

Institute Society and Technology, **well-informed and investigating in depth**





Institute Society and Technology, policy-oriented and public-centered

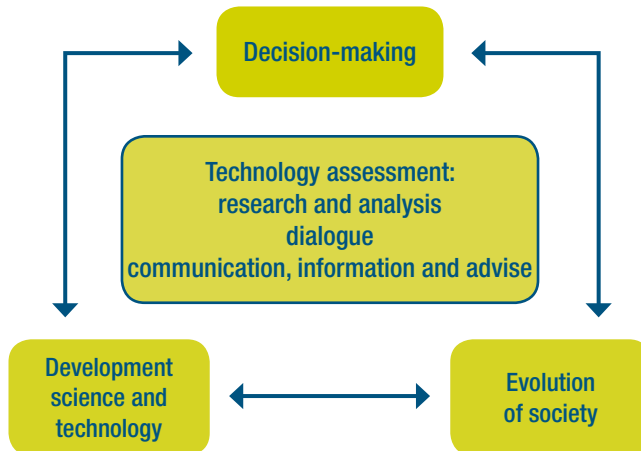


The target groups of the Institute Society and Technology?

in the first place the members of the Flemish Parliament

The Institute Society and Technology is founded by decree by the Flemish Parliament on 17 July 2000, as an independent, autonomously functioning organization for technology assessment. At that time it was called 'Vlaams Instituut voor Wetenschappelijk en Technologisch Aspectenonderzoek' - viWTA (Flemish Institute for Science and Technology Assessment).

As a parliamentary technology assessment organization, the Institute supports **the decision-making process of the Flemish representatives, with regard to science and technology policy**. Nevertheless, the Institute is not directly involved in the actual decision-making, neither in its implementation. Those areas belong to the exclusive responsibility of the members of parliament and the competent ministers. But the Institute does contribute to the policy-making process. It supplies knowledge about the underlying scientific foundations and it studies the social acceptance of new technologies. **It makes recommendations on what CAN be done**, rather than on what SHOULD be done. The Institute also communicates to a **wider forum of stakeholders and citizens**.

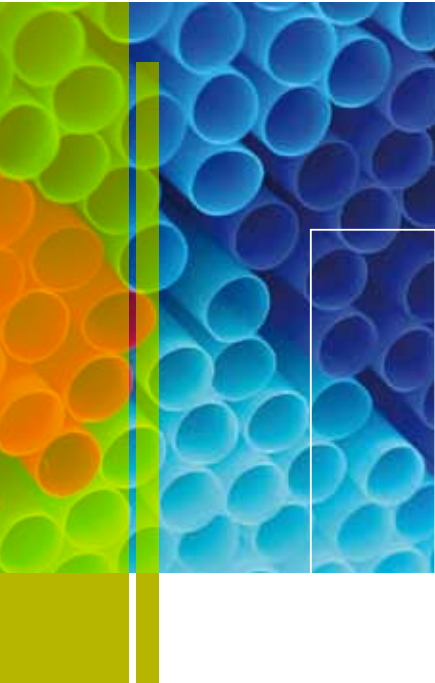


How does the **Institute Society and Technology** fulfil its tasks?

gain insight, dialogue, inform and advise

Technology assessment rests on three pillars: map out knowledge that is relevant for the policy-making process, start a constructive dialogue between the parties involved (experts, stakeholders, public, and politicians), and support the policymaking by supplying information and recommendations.

As a modern technology assessment-organization, the Institute systematically engages in a dialogue process with the citizens about the impact of scientific and technological developments, thereby taking a unique position in Flanders.



In practice, the Institute Society and Technology fulfils its task by:

- conducting brief, preliminary assessments;
- outsourcing longer and more comprehensive studies and/or obtaining advice of local or international experts and research teams;
- organizing an appropriate and well scaled constructive dialogue between the various parties involved;
- making recommendations to the Flemish parliament;
- keeping contact with the regional, national, and international organizations involved in the scientific and technological decisions and choices.

Institute Society and Technology, **helpful and future-oriented**

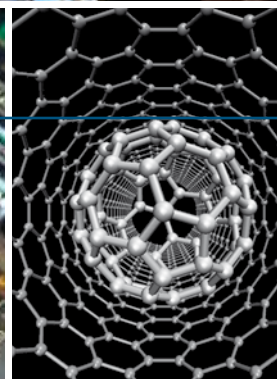
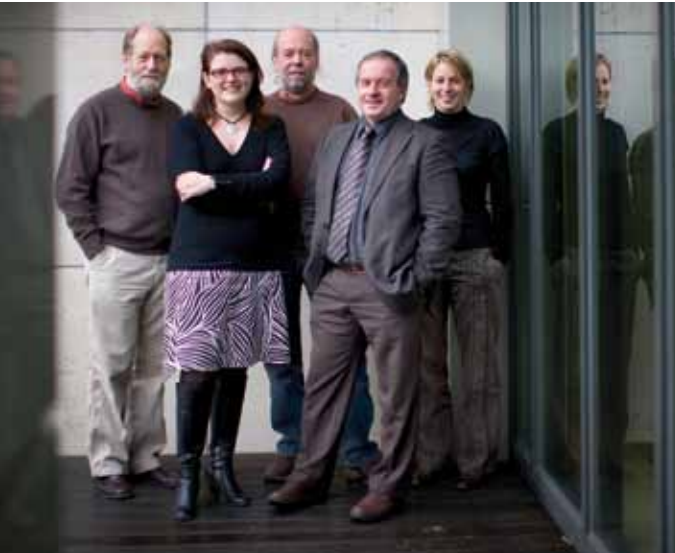


Who are the people behind the Institute Society and Technology?

As an autonomous institution associated with the Flemish Parliament, the Institute has its own executive board, which consists of 16 directors. Eight of them are representatives, belonging to the various parties in the parliament, who also supply the President. The other half is composed of experts from the Flemish scientific, technological, environmental and socio-economic communities.

The daily responsibility of the Institute is being held by the scientific secretariat. Besides a director and an administrative secretariat, the staff is composed of a small but thoroughgoing group of 4 up to 6 researchers and a communication manager.

Institute Society and Technology, **dynamic and creative**



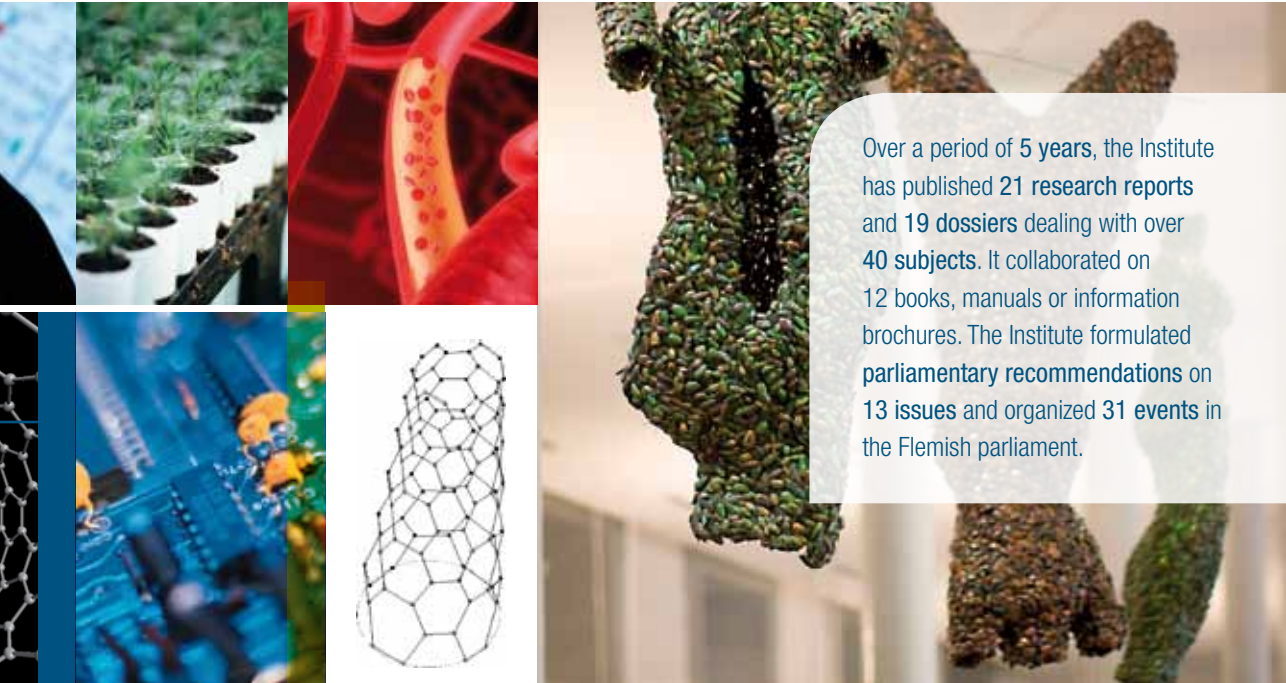
What has the **Institute Society and Technology** realized so far?

a remarkable mixture of interesting projects

Since its foundation, the Institute has dealt with quite a variety of issues, from 'biotechnology', through 'mobility and use of energy' to 'cyber harassment' and 'nano technology'. For that purpose, it applied a broad range of methods and approaches: explorative survey studies, interviews with experts and stakeholders, retrospective trend analyses, consensus conferences, public forums, citizen conventions, parliamentary hearings...

For certain issues, a short, explorative analysis can do. Others require in-depth research, including extensive participation of stakeholders and public.

Institute Society and Technology, **scientific and multidisciplinary**



Over a period of **5 years**, the Institute has published **21 research reports** and **19 dossiers** dealing with over **40 subjects**. It collaborated on 12 books, manuals or information brochures. The Institute formulated **parliamentary recommendations** on **13 issues** and organized **31 events** in the Flemish parliament.



Robby Berloznik, Institute Society and Technology director

A few examples of completed projects

ICT threat for some, opportunity for others

“New technologies constitute an intricate complex of opportunities and threats”, says Institute Society and Technology director **Robby Berloznik**. “Now, take ICT, the information and communication technology. To some people, this evolution is a blessing. It leads to new professional opportunities, unrivalled recreational possibilities, a wealth of easily accessible information, and so on. For others, it results in an unbridgeable gap with our nowadays society.”

Robby Berloznik therefore thinks it is important to acquire a thorough understanding of the impact of a specific technology for various target groups. Hence a series of TA projects on ICT – ‘**Elderly people and ICT**’, ‘**Young people and gaming**’, ‘**Deprivation and technology**’, ‘**E-democracy**’....

“Only ‘custom made’ analyses can lead to an appropriate policy that minimizes the threats and maximizes the opportunities”, the director concluded.

Electromagnetic radiation

correctly assess the risks and remain alert

Mobile phones, wireless networks, microwaves, computer displays, high-voltage lines, radio and TV masts ... we are surrounded by a multitude of sources of electromagnetic radiation. **Willy Weyns**, researcher with the Institute Society and Technology: "Our research has shown that there is still a lot of uncertainty about the eventual **risks involved with exposure to this kind of radiation**. We must therefore remain alert, especially when vulnerable groups, such as children and people with implants, are concerned. Furthermore it is advisable for the authorities to conduct a large-scale measuring campaign in order to find out to what extent radiation, let's say from GSM masts, penetrates into our homes, preferably on a long term basis, which would enable us to establish eventual evolutions over time. These are some of the recommendations we made to the Flemish Parliament".

Willy Weyns, researcher with the Institute Society and Technology



Nano Nu

Big festival about the ultra small

According to [Lieve Van Damme](#), communication manager with the Institute Society and Technology, “Nano Nu was the event par excellence on the developments in nano science and nano technology. Nano Nu demonstrated fascinating experiments and scientific views and displayed a series of nano products that are already on the market. Nano Nu programmed films and theatre plays, each of them followed by a discussion, and interactive workshops. It exposed some work of Flemish artists that found inspiration in the nano-scale world. “Nano Nu was two days full of lectures and debates, interviews, and discussions with and among scientists, but also with the public, from very intimate to large groups. In short, for a few days, the Flemish Parliament has been ‘the place to be’ for nano in Flanders. A unique experience for all those who attended the event!”

[Lieve Van Damme](#), communication manager with the Institute Society and Technology





[Donaat Cosaert](#), researcher with the Institute Society and Technology

Energy systems in Flanders 2050

interaction between lays and experts

How does Flanders reduce its greenhouse gas emissions, how does it guarantee its energy supply without capitalizing on future generations and the rest of the world population? "In most cases these questions will be answered by a think tank of experts", says [Donaat Cosaert](#), researcher with the Institute Society and Technology. "An Institute that focuses on participatory technology assessment however will privilege another approach. It starts a dialogue between experts, stakeholders, and lays, in order to create a broadly supported vision of the future of the Flemish energy system." In this specific case, the participants developed future images and scenarios for the Flemish energy system in 2050. Donaat Cosaert: "If only for the methodological approach, it was an enormous experiment, since it was the first large-scale scenario exercise in its kind in Belgium, conducted with citizens." In any case, the citizens succeeded in developing three creative and challenging perspectives on the future of Flanders, as far as energy is concerned. The exercise with the experts was the key to determining original technological and infrastructural goals in areas as different as transport, house-building, environmental planning, and the services industries.



Els Van den Cruyce, researcher with the Institute Society and Technology

Functional food sailing under false colours?

Functional food is coming on: shops racks are packed with foodstuff pretending to offer an extra health bonus: cereals with added minerals, fruit juice with extra vitamins, cholesterol lowering margarines or yoghurt drinks with natural bacteria that improve our intestinal functioning. “But aren't they often sailing under false colours”, **Els Van den Cruyce**, researcher with the Institute Society and Technology asked. “Are all those promises really based on solid scientific ground?”

In a ‘[State-of-the-affairs](#)’ dossier, the field of functional food has been mapped out and thirty Flemish food experts have been asked to answer a questionnaire. Conclusion: the action and the effects are harder to prove than in the case of medicines, for functional food contains different nutrients, which makes specific relevant research very complicated. Van den Cruyce: “From the point of view of a general Flemish preventive health policy, the most important message is that functional food is no real alternative for a well-balanced diet and a healthy way of life. For certain target groups and specific problems however, functional food can be an interesting option.”

How does the Institute Society and Technology communicate?

“Communication is a key success factor in every TA project”

The Institute Society and Technology aims at communicating the results of its TA research in a precise, balanced and appropriate manner. Actually, not only the results but the TA approach, the TA process and the TA method in themselves have to be clear.

The Institute is aware of the fact that a TA project can only lead to the desired social changes, if the political network and the general public are convinced of the need for a change and if the policy options are perfectly clear. Communication is inevitable to achieve that goal, provided that

- > **it is tailored to the target group;**

Scientific reports are relevant for scientists and for the knowledge building within the Institute. Nevertheless, to address specific target groups, including policymakers, specially adapted and attractive means of communication should be put into action.

- > **it joins reality;**

It is key to communicate on the appropriate moment. As far as the content is concerned, communication should keep in touch with reality.

- > **it considers the media as partners;**

Properly communicating with the media is crucial, not only with specialist journals or with the so-called quality newspapers, but also with the popular papers, magazines, radio, television, and on the internet. The media constitute a very important factor in raising public and political opinion.

- > **it is supported by the organization as a whole;**

The dissemination of the results of a TA research should not be limited to the director and the communication manager. It is the responsibility of every TA researcher to propagate the results of his or her project.

- > **it is a continuous effort.**

The actual work only begins when a study comes to an end and the results are being published. TA will only have an impact if its results are continuously communicated and commented, in a way that appeals to people and makes it belong to various contexts. In other words, TA communication also takes place outside the offices and the meeting rooms.

Over the years, the Institute has developed various communication products, including an electronic newsletter (e-zine), custom made publications (dossiers, recommendations, facts in a nutshell,...), a web site, and so on. In some cases, such as the science festival Nano Nu, communication even constituted the very heart of the project.

How are new projects being selected?

have a finger on the pulse

The Institute Society and Technology tries as much as possible to gear its activities to the needs of the Flemish Parliament and to thematically follow the current scientific and technological trends, which are relevant for Flanders.

Therefore, the Institute carries out regular 'trend watches', to make an inventory of the current trends in the development of science and technology. Especially themes with a clear societal impact on Flemish areas of responsibility are taken into consideration. The trend watch inventory is subsequently fine-tuned in consultation with the other European TA institutions (the EPTA network), with the Flemish scientific and technological players, and with the responsible commissions within the Flemish Parliament. On this basis, the Institute defines its year program.

Institute Society and Technology, **transparent and accessible**

