
Monitoring public opinion on Nanotechnology in Europe

*European Platform on Nano Outreach and Dialogue (NODE)*
*(Grant Agreement NMP.2011.3-4-290575)*

# D5.1 Concept of General public outreach and dialogue activities

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# Table of Contents



# Table of Figures

# Executive Summary

This document describes the general public outreach and dialogue activities of the NanOpinion project. The objective of WP5 is to conduct Nanotechnology outreach in informal settings throughout Europe, directed at the general public, to involve a variety of target groups, including typically "hard to reach" groups. The activities are being developed and run with the aim of monitoring and understanding European citizens' opinions on nanotechnologies, focusing on groups without prior knowledge in science and on consumers of nanotechnology products.

The outreach activities will involve two main strands, which are linked with each other:

1. Monitoring station network will be set up in semi-public spaces (e.g. shopping malls). The objective of the Monitoring Stations is to go where hard-to-reach target groups are and to collect their opinion on nanotechnology, as well as to provide them with information and material on nanotechnology. Monitoring stations are large, striking objects with tablet devices and a user interface. The user interface consists of an online questionnaire, an info-pack about nanotechnology and links to social media. Three stations have been produced, which will travel throughout Europe. Overall, the Monitoring Station will be implemented in at least 14 locations by ECSITE and its Third Parties, 12 by British Council and 10 by project consortium members.
2. Streetlabs will be developed with informal learning and science engagement experts, artists, science festival organisers etc. and will take place in conjunction with the Monitoring Station network. Streetlabs will create a space for dialogue between the scientific world and the 'hard-to-reach-public' in conventional and mundane spaces. Streetlabs always host a Monitoring Station. Overall 9 institutions will be running Streetlabs in 13 different locations.

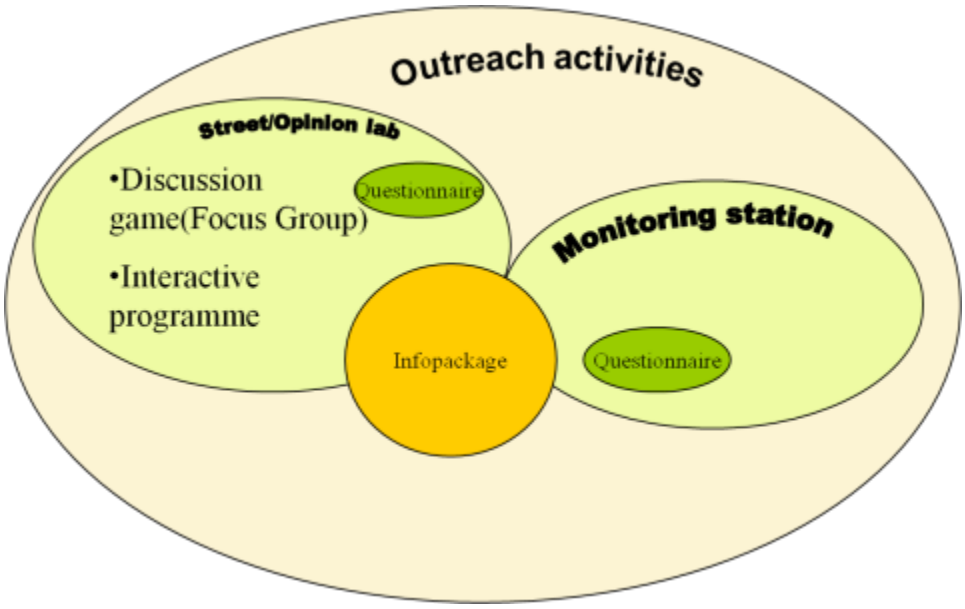
One other dialogue activity which will be run by institutions organising Streetlabs is a Participatory Workshop. The aim of these workshops is to get qualitative data and a better understanding on how European citizens form their opinion on Nanotechnology and their attitudes towards Nano products. Participants of these workshops will be recruited at Streetlabs.

# 1. Development process

There has been a long development process for the outreach activities, involving Ecsite, BC, ZSI, IrsiCaxia, STSSCZ, LYITCC, AU and ORT. Two major face-to-face development meetings took place in addition to numerous teleconferences.

The first WP5 development meeting took place in London in October 2012. BC, ECSITE and ZSI were present. The main outcomes of the meeting were the definition of target groups for the entire WP5 and the procedure for the design competition for the Monitoring Station. As described in the next chapter, it was decided that 'hard-to-reach' groups will not be defined by their socioeconomic background, but according to the level of their interest and involvement in scientific topics. Also it was decided that three design concepts would be presented at the Consortium Meeting in London in November 2012. After a feedback round with consortium partners the final decision would be taken by partners within WP5.
The second working meeting took place in Vienna in January 2013. The aim of this workshop was to finalise the overall concept of outreach activities and synchronise several work packages involved. The following tasks, which are connected to each other, were discussed: T3.3, T5.1, T5.3, T6.3.

The main difficulty partners were faced with was how to combine qualitative data collection and innovative outreach activities in the streets and public spaces. According to the DoW Streetlabs were supposed to provide qualitative data for analysis in WP6. As qualitative data collection requires a lot of time and in-depth dialogue, such processes are difficult to implement on site. It was hard to imagine how one could organise long lasting dialogue activities in public settings, where it's hard to catch peoples' attention. One solution proposed was to make the discussion game (T3.3) the basis of Streetlabs. So that Streetlabs would contain mostly a game plus some additional elements. In that way a Discussion game could also serve the purpose of Participatory workshops (or focus groups). Below the two models of the proposed options are introduced:



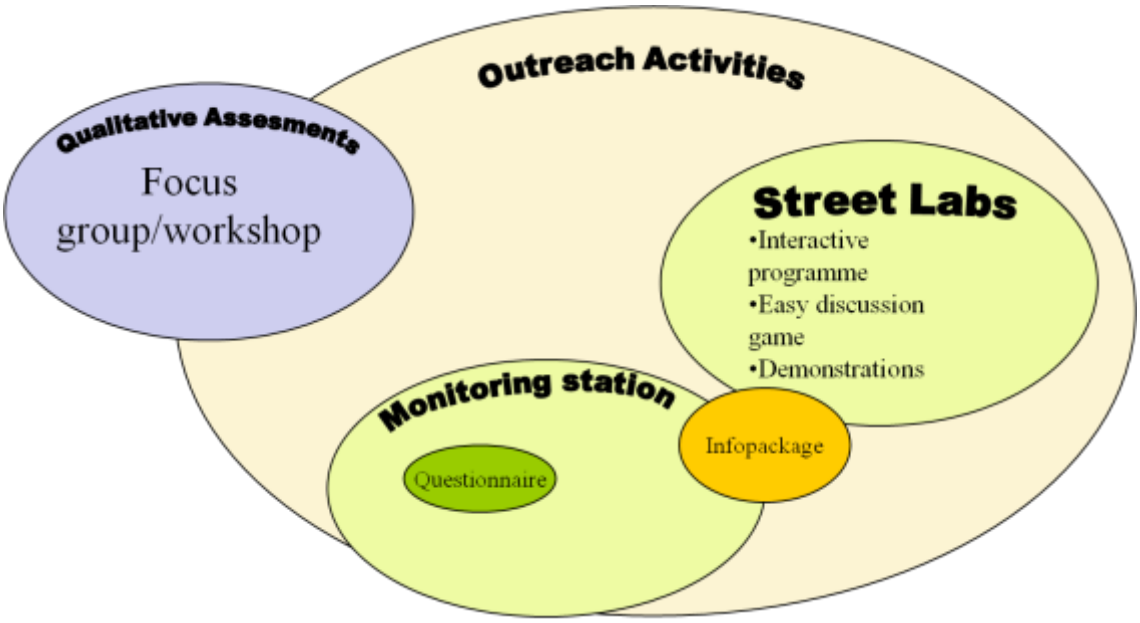



**Figure 1 Proposed options for outreach activities**

In the first option the discussion game is the same as the participatory workshops (or focus group). Streetlabs also mainly consist of a traditional discussion game with some minor additional elements like demonstrations or a guest speaker.

The second option differs in a way that participatory workshops are separate activities. Streetlabs consist of an interactive outreach programme and a lightweight version of a discussion game.

In both options Monitoring Stations are related to Streetlabs and incorporate the online questionnaire. Both options also offer an info-pack, which provides information about nanotechnology.

Throughout the workshop the second option was chosen, as it was very important for the project to keep Streetlabs in their original form— taking science to the streets and catching peoples' attention. It was also decided that those organisations running Streetlabs would also run the participatory workshops required by WP 6.

Obligatory elements for Streetlabs have been discussed. Furthermore, the structure of the info-pack was defined. Also the idea of a product box to complement the Monitoring Station came to life. Different formats of discussion games were discussed and the initial idea for a lightweight discussion game based on theatre was first mentioned. This workshop in Vienna proved to be essential to synchronise the different work packages and to finalise one of the core pillars of this project—the outreach activities. In the coming months all materials, which are described in this document, have been developed in time for the first outreach events.

The Outreach Activities training was held on 10-11 April 2013 in London. Ecsite Third Parties, representatives from British Council, ZSI, STSSCZ and LYITCC were present. It was a two-day programme where attendees were introduced to all outreach requirements, tools and procedures. A special detailed handbook was produced for the training purpose and the briefing for WP 5 and WP6 activities. In this handbook organisations running outreach activities may find everything they need to succeed in their events. The agenda included sessions on the general aims and introductions to the project; outreach and evaluation requirements, the

Discussion Game, the exchange of ideas for Streetlabs, evaluations etc. The designer of the Monitoring Station was also invited where he demonstrated and explained how to build the station.

# 2. Target Groups and Topics

Deliverable 1.2 [1]Best Practice Report mentions that within the screened projects/activities 'hard-to-reach' groups have never been specifically addressed. NanOpinion's outreach activities are directly aimed at 'hard-to-reach' groups. Within WP5 "hard-to-reach" target groups have been defined as groups of general public who do not have an interest in science or specifically in nanotechnology. These people are not a typical science museum audience. These groups however might have an interest in another topic and by attracting them to an event related to their topic of interest we introduce nanotechnology to them. Therefore by learning about nano-applications in their interested topic, the audience gets involved in the discussion on nanotechnology. The main target group is adults (not children). Although there will be some activities for children as part of some Streetlabs, their aim is to get access to their parents.

WP5 in cooperation and synchronisation with other work packages has identified main topics, on which the project will focus. These topics will be addressed at Streetlabs, Monitoring Stations and participatory workshops. In addition, products have been chosen in compliance with these topics. The main topics are:

- Food (dietary supplements, food freshness, food packaging)
- Sports/Textiles (innovative textiles, sports equipment)
- Medicine (detection of diseases, growing new bones, cancer treatment, pain relief)
- Cosmetics (sunscreens, safety issues)
- Environment/Energy (solar cells, light bulbs, windmills, water-treatment devices, oil absorbers, Biodegradable plastic)

According to the involved target groups Streetlabs can focus on one or two selected topics. If the location and involved target groups are general, then Streetlabs can also cover a broader range of topics. Some of the examples of locations of Monitoring Stations and Streetlabs, where people with an interest in another topic will be targeted are:

- Literature festival (Barcelona) – General/ Environment
- Museum Night (Dortmund) - General
- Food Festival (Aarhus) – Food
- Fashion Show (Pilsen) - Textiles
- Jazz Festival (Perugia) – General/Music
- SunDuathlon (Estremoz) – Sports/Energy
- Shopping Malls (Istanbul, Prague) - Food/general

Taking into account the selected topics to be discussed throughout all outreach activities and based on the product inventory produced in WP3[2] a list of products has been chosen and

[1] NanOpinion D1.2 Best Practice Report

[2] NanOpinion Consumer inventory product and NanOpinion selected consumer products & ELSA issues

purchased. In order to be consistent throughout the project, these products will be used for demonstration purposes at Monitoring Stations, they will be discussed in the online questionnaire, in participatory workshops and used in the discussion game. More information on the selected consumer products is available in section 3.2.2

# 3. General Concept of Monitoring Stations

The objective of the Monitoring Stations is to go where hard-to-reach target groups are and to collect their opinion on nanotechnology, as well as to provide them with information and materials on nanotechnology. Monitoring stations are physical objects. They are large mushroom-like stations, with tablet devices. The design of the Monitoring Stations resembles a lotus leaf, a plant that has a well-known nano effect (called the Lotus effect). The design of the station was synchronised with the branding of the project and thus the deep red colour was chosen for the walls and the roof. The main aim of the stations is to collect quantitative data about opinions on nanotechnology in Europe by encouraging people from the street to complete the online questionnaire. The online questionnaire is the main data collection instrument of the project.

**Figure 2 Monitoring Station design**

The Monitoring Stations were designed by a British design agency PostlerFergusson, who won the call for tender.

Dimensions:

- Assembled: 3m (tall) by 5m (wide)
- Packed: Three ski-size bags: 21cm X 23cm 185cm
- Total weight of 3 ski bags is 60 kg

Monitoring Stations are equipped with 2 tablet PCs (LENOVO IdeaTab A2107) attached to it and one loose. A special user interface was installed on the tablets, it is available online in all required languages. . Apart from the questionnaire, it will offer users an info-pack with information on nanotechnology and links to all social media and discussion channels.

Together with the Monitoring Station organizers will receive a box of nano-products for demonstration purposes.

Monitoring Stations will be facilitated by somebody at all times. The role of the facilitator is to encourage guests to complete the online questionnaire, to show them how the interface operates, demonstrate the NanOpinion consumer products and chat about nanotechnology. Organisers of Monitoring Stations are welcome to bring in their creative ideas to make the whole experience for visitors more enjoyable and educational.

Three Monitoring Stations have been produced in the UK, which will travel all around Europe. Shipping of the station will be done centrally by a courier TNT. Shipping will be coordinated by BC with the assistance of Ecsite. All Monitoring Station activities will be documented. Organisers are encouraged to be creative; for example, shoot interesting photos, film short videos etc. All this documentation will be fed into the NanOpinion website, blogs, media and social media channels. All organisers will write posts in their own language and in English.


**Figure 3 Monitoring Station mock up**

The NanOpinion Monitoring Station is constructed much like a tent. It has a frame of metal and fiberglass poles and is covered with nylon fabric. It has integrated stands for tablets, attachment points for printed material, small item storage and LED strip lighting. It takes a minimum of two people to construct, and usually takes around 2 hours to build the first time.

It also comes with a separate stand, which marks the NanOpinion project with its logo and offers an opportunity to display large poster or polls of the month.

In April the first station was completed and presented to representatives of WP5 as well as Ecsite Third Parties. A training session on assembling the station lead by the designer was conducted.

Detailed instructions on assembling the station (taking all the feedback into consideration) have been provided by the designer and distributed to all organisations hosting a Monitoring Station.

After having tested the first Monitoring Station in Croatia, feedback and suggestions for improving the other two stations plus the instructions are being discussed with the designer and adjusted accordingly.

## 3.1. Design Process

All partners from WP5 attended live meetings, online meetings and teleconferences to define the concept and requirements for the design of the Monitoring Stations. It was agreed that within the given budget the most efficient strategy would be to build three good quality, creative and striking stations which would travel around Europe. Minimising the number of stations allowed the WP5 partners to commission high-level design and equip it with the latest technology. These points were seen as necessary to be consistent with the image of nanotechnologies: innovative, cutting-edge science and technology.

A design call was launched aimed at experienced designers as well as young design schools graduates. The call was disseminated to 24 design schools/institutions in France, Belgium, Lithuania, Czech Republic, the UK, Germany, Italy and Spain.

Six applications with the first design concepts from young designers were received and assessed by all members of WP5 with a scoring system against different criteria: attractiveness, accessibility, relevance to Nanotechnologies dialogue, safety, modularity, ease of assembly, resistance, outdoor elements, and night time possibilities and portability.

The three best design concepts were selected and commissioned for advanced detailed designs (see the Annexes for the working document for the evaluations of the concepts). At the Consortium Meeting in London in November 2012 the three detailed concepts were presented to all project partners. Feedback and comments were collected and considered. Some of the comments from the Consortium were:

- MS should be wheelchair accessible
- WIFI access
- A method needs to be developed to attract attention
- An app needs to be developed (easier on Android)
- Make sure MS is not a selling point
- Will reading material be available?
- Other Tablets not Apple need to be considered
- Give participants nano-material to see and try
- Time a participant spends at MS needs to be announced

After considering all feedback, having numerous discussions with the participants of WP5, and negotiating with the selected designers, the finalist—UK based design agency PostlerFergusson—was chosen and commissioned to produce the final design concept and oversee the manufacturing process. PostlerFerguson's concept, Nanopak, was chosen because of its striking design and ease to assemble. It was also very practical in terms of protecting participants from different weather conditions, adjusting the height of the tablets and good packaging for travel.

### 3.1.1. Design Brief

The three sets of Monitoring Stations or 'pods' would have to be visible structures, aimed to attract the curiosity of the passing public and encourage them to enter. Each pod will consist of three iPads, tablets or laptops which the public will use to obtain information, engage with the subject matter, participate in dialogue and give opinions. The iPads, tablets or laptops will need to be securely affixed to the structure. Other printed material will be displayed within the pod.

The pods should be usable by one facilitator and three users at the same time. The pods should keep the weather out but not necessarily be all-enclosing.

As the pods will be used in public places by a variety of users (including youngsters), a special attention has been given to safety (good stability, no sharp edges) and accessibility for people of different ages, sizes and (dis)abilities.

The pods will be sent to various locations around Europe in kit form where they will be assembled and positioned by non-trained staff at outdoor and indoor locations. This means the materials will need to be lightweight and the construction method quick and easy, 'Ikea style', ideally without the need for power tools. They should also be easy to disassemble and reassemble at another location. As each pod will be used in around 10 locations across Europe, the material has to be resistant to a large number of uses, set up and take down, indoor and outdoor. They should also be easy to pack in a reasonable-sized box for simple shipping across Europe.

Ideally, the design should be modular in order to be adaptable to different places and environments. The design may integrate inspiration from some of the following ideas, as indicative examples:

- Nanotechnology related design: use of nano-material, nano-related shapes (e.g. fullerene football shape, carbon nanotube), nanotechnology/small size symbols, nanotechnology application references, high-tech/sci-fi, etc.
- Open dialogue and opinion references: debate, transparency, etc.

**Budget**

Materials and manufacture:
15 000€ for all for the three stations
10 000€ for all electronic technical device (/tablets/laptops and cables).

Designer fees:
First concept design, application: no fee.
Fee for detailed concept development by the three first-ranked designers: 761€ by designer.
Fee for the final development by the appointed designer: 1 270€.

### 3.1.2. Main requirements for stations

| | |
|---|---|
| Must appeal numerous visitors | • Appealing and visible for a wide audience<br>• Needs to spark people's curiosity, give a key hint/message on nanotech |
| Must be able to work outdoor | • Have an impermeable roof and optional rain protection<br>• Be really strong, to protect it (especially the electronic parts) from accidents like a random knock |
| Fit in different places and events | • Modular design |

| | |
|---|---|
| At least 2 people using it (more is better) | • Enough room for 1 facilitator and three users |
| IT station, in interaction with the portal | • Internet access and electric power<br>• 3 tablets/ipads/laptops |
| Portable, easy to transport from location to location | • Light, simple structure, quick set up and removal, resistant |
| Reusable | • No need for producing new/additional material when transporting and setting up in the next stations |
| Multi-lingual | • Materials shall be designed so minimal translation is needed |
| Simple integration into the street labs | • 10 Monitoring Stations will be set up during Streetlabs, thus a smooth integration will be necessary |
| Night time, winter time | • Include a light device |
| Banner, poster | • A place for a poster/banner |

## *3.2. Tools for the Monitoring Station*

### 3.2.1. Info-pack

An information package has been produced at part of WP5. ORT, IrsiCaxia, and AU have contributed towards it. The info pack consists of information about nanotechnology and its different applications and risks. It is written in a very accessible and compressed way in order to serve the needs of a Monitoring Station, where visitors have a very limited amount of time. The info pack follows the same topics, identified by the project and consists of a lot of pictures and videos. The pack is available via the user interface on tablets and on the NanOpinion portal. Part of it is also included in the brochures accompanying the stations. The pack is being translated into 17 languages. The info-pack consists of the following topic:

1. What are nanotechnologies?
2. Why should I care about nanotechnologies?
3. What is a nanometre?
4. What is special about things on a nanoscale?
5. Natural Nanomaterials
6. Are nanotechnologies something new?
7. How could nanotechnologies change our lives in the future?
8. Are there health risks involved with nanotechnologies?
9. Are there risks for the environment?
10. What about the law: how are nanotechnologies regulated?
11. Nanotechnologies and Food
12. Nanotechnology and Cosmetics
13. Nanotechnology and Sport
14. Nanotechnologies and Energy
15. Nanotechnologies and Medicine
16. Nanotechnology and Environment


**Figure 4 Sample page of the info pack**

### 3.2.2. Product box

A box of consumer products accompanies the MS to all of its destinations. It has been compiled based on the product inventory produced within WP3. Several consumer products, which are good for demonstration purposes have been chosen and purchased. The box contains:

**High-protection sunscreen** that is transparent in appearance and thin in consistency, but very effective against sunburn—a new sunscreen that contains nanoparticles of Titanium oxide (TiO2) or Zinc oxide (ZnO). In conventional high-protection sunscreens (SF30+), bigger particles of TiO2 and ZnO are used and the cream appears white and thick. Instead when using nanoparticles the sunscreen is transparent, but still blocks UVA and UVB rays.

**An innovative line of T-shirts** that repels stains, absorbs odour, and stays dry even under heavy training. A line of T-shirts with enhanced properties based on nanotechnologies – tiny molecules are permanently attached to fibres without clogging the fabric weave, which will enable superior performance without compromising the look, the feeling, durability or comfort of the fabric. Depending on the engineering, the shirt can absorb the bad smell, stay dry even during heavy training, or totally repel staining.

**Anti-bacterial plastic food container.** Some new food containers are made of a plastic that contains silver nanoparticles giving it antibacterial properties. This way the food stored inside stays fresh for longer time. Silver has been known for centuries to be antibacterial (is widely used in silverware) but silver nanoparticles have enhanced antibacterial properties and are transparent.

**LifeSaver bottle:** The bottle removes all bacteria, viruses, cysts, parasites, fungi and all other microbiological waterborne pathogens without the aid of any foul tasting chemicals like iodine or chlorine or the need for any energy/power. It is made of an activated carbon filter.

**NOVAmed kits:** Immuno-chromatographic kits that allow on site detection. Typical handheld assay strip/device contains a colloidal gold-labelled detector antibody dried onto a filter pad affixed to a nitrocellulose strip.

### *3.3. Online Questionnaire*

The online questionnaire is the main data collection tool of the project and the main reason for having the Monitoring Station. It is available via tablet devices at the Monitoring Stations and on the project website. It currently consists of 35 questions about nanotechnology and takes about 10 minutes to complete. The questionnaire was field tested and is being tested further at the first Monitoring Stations. If needed, the questionnaire will be modified. The questionnaire is being translated into 17 languages. Figure 5 shows a print screen of what the questions looks like.

At least 200 respondents per institution hosting a Monitoring Station should be recruited to complete the questionnaire; other channels should lead to more respondents. Before starting the questionnaire, respondents will be informed that should they wish to they can enter a prize draw if they complete the whole questionnaire. The prize will be a tablet device, which will be given at the end of all Monitoring Station activities.
People who complete the questionnaire will also receive a little souvenir, in a form of a fabric bag with the NanOpinion link and slogan printed on it. These bags are being produced in the Czech Republic and will be sent to each location from there. Their purpose is not only to thank people for their time, but also to disseminate the project. Monitoring Station facilitators in all countries will play an important role in attracting and encouraging people to participate in the activities and complete the questionnaire.

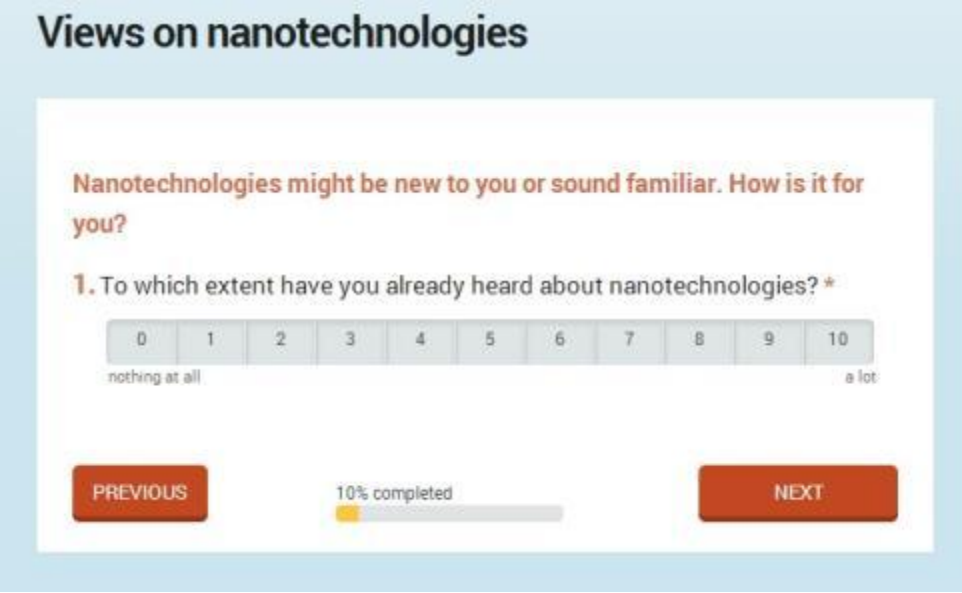



**Figure 5 Sample print screen of the online questionnaire**

# 4. General Concept of Streetlabs

Streetlabs will create a space for dialogue between the scientific world and the 'hard-to-reach-public' in conventional and mundane spaces. Nine institutions will be organising Streetlabs: 6 Ecsite Third Parties and 3 British Council offices. Most organisations will run more than one Streetlab.

When developing the detailed concept for each Streetlab the main question organisers think about is how to bring the hard-to-reach groups to start thinking and discussing nanotechnologies (including controversial issues). According to the involved target groups Streetlabs can focus on one or two selected topics. If the location and involved target groups are general, then Streetlabs can also cover a broader range of topics and be more general.

Streetlabs can be seen as events with multiple stations/stands/activities where people circulate freely—similar to a market or a fair. However, organisers are welcome to bring in their own creative ideas and decide on the format. Each organiser is able to decide where to organise the Streetlab and which activities to do, but must integrate some obligatory elements which should be adapted to the local conditions and target groups.

## *4.1. Obligatory elements of each Streetlab*

- Streetlabs help to attract the hard-to-reach audiences and involve them in discussions; the Monitoring Stations serve to involve these same audiences in the data collection which is an important part of the project. Thus Streetlabs always go together with a Monitoring Station. If an institution is hosting only one Streetlab, it needs to host a Monitoring Station as well. If several are organised, they can be done without a station (as long as they are together at least once).
- Each Streetlab has to have a catching, innovative, entertaining outreach activity that attracts this hard-to-reach audience. This catching activity aims to get the initial attention and interest of the audience.
- Each Streetlab has to have a dialogue activity. This is one of the key aims of Streetlabs. This activity aims to involve the audience in a discussion about nanotechnology. The discussion takes place at the event itself and comes up with shared conclusion amongst the debaters. One dialogue activity, which is developed by the project and should be used by all organisers, is a theatrical discussion game. For details see section 4.3.
- Streetlabs have to provide some interactive elements that help introduce the products, topics or nanotechnology in general to the hard-to-reach audience. The focus is on the "interactivity" where the audience can learn or experience nano not only by reading a poster or a brochure, but by interacting with a multimedia station, a product etc.
- Each Streetlab should include an opinion-collecting mechanism to collect the audiences' opinion on nanotechnology on-site. This could be installations at the Streetlabs, for instance, statements about nanotechnology where participants agree or disagree, leave their comments or open questions. The discussion game will have a feedback mechanism. But local partners could also think about other ways to collect and illustrate the feedback of the audience at the Streetlab itself.

## *4.2. Examples of Streetlabs*

### 4.2.1. Perugia, Italy

**Number of Streetlabs:** 3/4
**Location:**
- Perugia Main Street during Umbria Jazz Festival
- NanoEnergy Meeting
- Isola di Einstein
- Supermarket

**Dates:** July 2013 – September 2013
**Catching elements:** Science busking, Flashmob, Teatro Clandestino
**Dialogue activity:** Theatrical Discussion game
**Feedback Mechanism:** Video box
**Other outreach activities:** Science demonstrations
**Topics**:
- Health: acoustics devices for deaf people
- Environment: nano-sensor to detect noise pollution
- Energy: what will power all nanotechnologies?

### 4.2.2. Estremoz, Portugal

**Number of Streetlabs:** 2
**Location:**
- Science in the Street (Arts and Science Festival)
- SunDuathlon

**Dates:** September 2013 – October 2013
**Catching elements:** performances, sport
**Dialogue activity:** Discussion game, discussion of nanotechnology applications
**Feedback Mechanism:** Self-evaluation jigsaw puzzle, Inquiries, Questions and answers of memory games , MS stations
**Other outreach activities:** NanoReading; nano kit demonstrations
**Topics:**
- Energy/Environment
- Sport

### 4.2.3. Pilsen, Czech Republic

**Number of Streetlabs:** 2
**Location:**
- Fashion Show
- Juniorfest (International Children Film Festival)

**Dates:** October 2013 – November 2013
**Catching elements:** Both events attract a large number of participants by themselves
**Dialogue activity:** Discussion game, traditional discussions on applications of nanotechnologies
**Feedback Mechanism:** Questioners
**Topics:** Nanomaterials

### 4.2.4. Coruna, Spain

**Number of Streetlabs:** 2/3
**Location:**
- Social/community centres
- Park
- Shopping Mall

**Dates:** November 2013 – December 2013
**Catching elements:** Nanolab, Nanokit
**Dialogue activity:** Discussion game, nanoyou role play
**Feedback Mechanism:** Social media
**Other outreach activities:** videos, demonstrations

### 4.2.5. Rome, Italy

**Number of Streetlabs:** 3
**Location:**
- Festival della Scienza Auditorium Renzo Piano
- Explora Il Museo dei Bambini di Roma
- Shopping Mall or Outlet in Rome

**Dates:** January 2014
**Catching elements:** one workshop addressed at children with the participation of adults + one workshop purely for adults and hands on activities tailored for children (+7) and adults
**Dialogue activity:** Discussion game and a dialogue activity/discussion based on the workshops
**Feedback Mechanism:** Questions and answers
**Other outreach activities:** Expert and/or researcher giving a talk about nanotechnologies, book readings in Explora bookshop (dedicated to children + 7), demonstration by enterprises involved into nanotechnology.

### 4.2.6. Istanbul, Turkey

**Number of Streetlabs:** 1
**Location:** Shopping Mall in Istanbul
**Dates:** April 2014
**Dialogue activity:** Discussion Game
**Feedback Mechanism:** Questionnaires
**Other outreach activities:** Demonstrations with the NanoKit

### 4.2.7. Prague, Czech Republic

**Number of Streetlabs:** 1/2
**Location:**Shopping Centre in Prague
**Dates:** November 2013
**Catching elements:**TBC
**Dialogue activity:** Discussion game; role play
**Feedback Mechanism:**Questionnaire and social media
**Other outreach activities:** Use of nanokit

### 4.2.8. Barcelona, Spain

**Number of Streetlabs:** 1/2
**Location:** Centre of Contemporary Culture of Barcelona
**Dates:** February to March 2014
**Catching elements:** Whilst exact format of event is yet to be determined, BC Spain will take advantage of its relationship with CCCB and Kosmopolis, the biennial international literature festival, which attracts a huge and diverse audience
**Dialogue activity:** Discussion game
**Feedback Mechanism:** Questionnaire and social media
**Other outreach activities:** Expert speaker and use of nanokit

### 4.2.9. Bern, Switzerland

**Number of Streetlabs:**2/3
**Location:** Migros (one of the big supermarket chains with a number of malls throughout Switzerland) and/or Technorama, the most well known hands-on technology museum in Switzerland,
**Dates:** March or April 2014
**Catching elements:**Large and diverse footfall
**Dialogue activity:** Discussion game and potential panel debate led by expert speaker
**Feedback Mechanism:** Questionnaires and social media Use of nanokit
**Other outreach activities:**

## *4.3. Discussion Game*

As part of WP3 a Discussion Game[3] was produced, which is tailored at the use at Streetlabs. It is a theatrical discussion game exploring the topic of nanotechnologies. This is a new format produced specifically by and for the NanOpinion project. It uses the techniques of theatrical debate. The game is aimed at informal semi-public settings, where passers-by can participate without spending too much time. Participants get a chance to learn, explore and debate the controversial issues around nanotechnologies. The game touches safety, regulation, ethical and health issues.

The theatrical discussion game is fun, but at the same time serious. It adheres to the playfulness motto 'let's take serious things playfully and playful things seriously'. It is light-weight in the sense that it is easy for the audience to become involved and participate. The game is designed as follows. It consists of two scenes. Each scene depicts a separate aspect of the future with nanotechnology, including new materials/nanoproducts and new medical practices/using nanotechnology. The scene shows what that future can look like. Each scene is followed by a discussion with the audience that is supported by discussion cards. After approximately 20 minutes, the next scene starts. In total, the game takes around 30–40 minutes, depending on the activity of the audience.

Ecsite Third Parties have been trained to the use the Discussion game during the training meeting in London in April 2013. Most of them are intending to use the game at their Streetlabs.

[3] NanOpinion D3.3 Discussion Game

# 5. Participatory Workshops

Participatory workshops are workshops that were designed in WP6 in order to collect qualitative data on opinions about nanotechnology. All institutions running Streetlabs will also organise Participatory Workshops. The two are related in a sense that participants for the workshops may be recruited during Street labs. The workshops are not necessarily part of Streetlabs as they require time and quiet space, but they are related as they might have same participants.

The participatory workshops will last two and a half hours and involve 8 to 10 people in interactive assessment and dialog activities along a structured guideline. The main aspects discussed during the participatory workshops are related to the online questionnaires. Qualitative data collection instruments aim to get a deeper understanding of the main issues investigated in the project.
The workshop will use artefacts, e.g. cards describing nano-products or newspaper articles with different framing, to understand how opinions on nanotechnology are formed and what the influencing factors for this opinion forming are. It will also get deeper insights on the argumentations of risk and benefits and how they change within interpersonal discussions.
More information on Participatory workshops can be found in D6.1[4].

# 6. Evaluation

There are several evaluation mechanisms which have been developed together by WP5 and WP6. These mechanisms will be used to evaluate the Streetlab and Monitoring Station activities around Europe.

The two evaluation instruments are:

- The Live event questionnaire (in Annex)
- The Live event reporting template (In Annex)

The live event questionnaire is a questionnaire which needs to be filled in by the participants of Streetlabs. Each institution organising Streetlabs will make sure that at least 100 people complete the questionnaire. The collected paper questionnaires will be digitalised and analysed.

The Live event reporting template summarises the main lessons learned from the project's innovative outreach activities. It helps to better understand what worked well and what would need to be improved in future. It has to be filled in by the moderators/animators/observer who participated at the Streetlab/Monitoring Stations. It contains detailed questions about the activities. Both documents are available in the Annexes.

More information on the Evaluation Strategy is available in Deliverable D6.1[5]

[4] D6.1 Evaluation Strategy Plan
[5] NanOpinion D6.1 Evaluation Strategy Plan

### 6.1. Success Criteria

| | Quantitative | Qualitative |
|---|---|---|
| **Monitoring Stations** | 200 questionnaires filled in per one MS (per hosting institution). In total around 6000 questionnaires in 21 different country. | People get attracted and interested by the station. They fill in the questionnaire, interact with the products and tablets. Awareness is raised. |
| **Streetlabs** | 100 people actively participating in a Streetlab | Visitors stop by at Streetlabs. Their attention is caught. They participate in the dialogue activities. They watch demonstrations. They walk out of Streetlabs with more knowledge and opinion on nanotechnologies. |
| **Participatory workshops** | 8-10 people per workshop | Participants actively discuss the topic. They enjoy the discussions and become more informed and aware. Good results for the analysis. |

# 7. Promotion and documentation of events

All organisations hosting Streetlabs and Monitoring Stations will do their own promotion using existing channels and networks. As they have to reach out to their non-traditional audiences they will also try and reach out to new promotion and marketing channels. A lot of organisations are collaborating with other bodies (e.g. established festivals, concerts, arts and sports events etc.), so part of the marketing will be done by those. This means that there will be audience, but the main challenge would be to attract their attention.

The Consortium is supporting all organisations participating in outreach activities by providing them with three InDesign templates for promotion material. The templates were produces by Stephan Pfeffer working for ZSI. The first one is an A1 poster, which is aimed at attracting attention and advertising for NanOpinion. It will be put up inside and outside the venue where the events will be taking place. The second template is a card with a website link and QR code aimed at encouraging people to complete the online questionnaire via their own mobile phones or through the website. The third template is a brochure for the general public. It will be given to visitors of the Monitoring Stations. The brochure contains very brief information about the project and some general basic knowledge about nanotechnologies. Each partner receiving the templates in English will translate them to their own languages and print them locally.

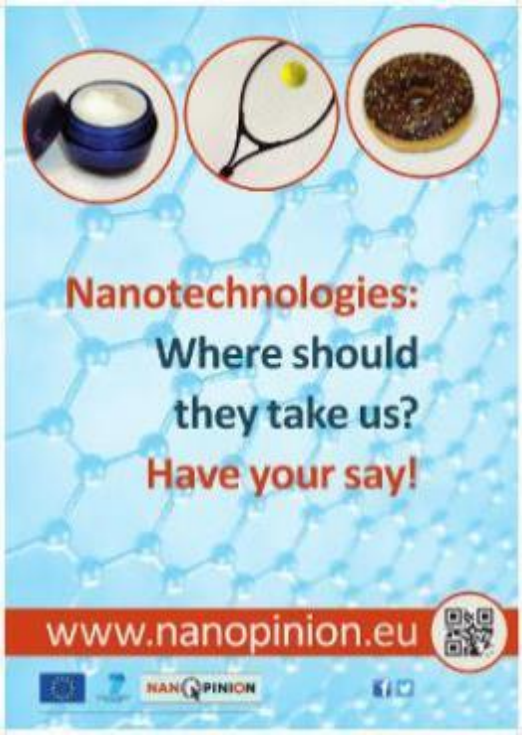
Documentation during events is essential and has been clearly explained to all parties involved. Organisers of outreach activities will be photographing/filming the events and spreading this information through their channels. In the meantime all of this publicity will be collected and disseminated through the NanOpinion website, social media and via our media partners.

**Figure 6 Promotion poster template**

# 8. Schedule and geographical distribution

Although, according to the DoW WP5 activities were supposed to start in M10 (February 2013), at the Consortium meeting in London it was decided to shift them 2 month later to make sure all materials were produced in time. The outreach activities are starting in April 2013 and ending in May 2014. The first Monitoring Station will is in action in one of the British Council offices in Zagreb, Croatia. Outreach activities will end with the last Monitoring Station being in Israel, where it will be co-hosted by ORT and BC Israel.

Each Monitoring Station will, on average, travel approximately 10 times. It will stay in each location for a period of one to three months. The Monitoring Stations will in total visit 21 countries: 17 EU countries and 4 non-EU countries. The largest and longest exposure is expected in the Czech Republic, Italy, Spain and Germany. In the Czech Republic the Station will visit several cities, including Prague, Pilsen, Ostrava and Pardubice. In Italy the station will visit Milan, Perugia, and Rome. In Spain some of the destinations include: Coruna and Barcelona. Two of the German cities where a Monitoring Station will be hosted are Dortmund and Berlin. Other




EU countries include Portugal, Lithuania, Sweden, Denmark, Poland, Austria, UK, Belgium, France, Greece, Bulgaria and Romania. Non-EU countries are Croatia, Switzerland, Turkey and Israel. In total 3 stations will cover 27 cities with many of them travelling to more than one location within a city. The Annexes include the most up-to-date schedule of all NanOpinion outreach events. Throughout the course of the project this list may change with new locations being added.

# 9. Annexes

## *9.1. Live event reporting/Observation template*

Event (MS, Streetlab, round table etc) :

City, Country:

Date:

Organiser:

### 1. Basic information

| **Item** | Description (to be filled in) |
|---|---|
| Timeframe<br>(At what time of the day did the event take place? What were the attendance peak times?) | |
| Location (e.g. room, public space) | |
| Participants, audience (number, gender, age, etc.) | |
| Basic format<br>(picnic, fair, theatre play…) | |
| Did you collaborate with any supporting institutions? Were your activities part of a bigger event? | |
| External invited special guests, experts etc. | |
| How did you promote the event? | |

2. **Activities**

| | |
|---|---|
| Which materials were used (including information) | |
| Core elements (e.g. dance, performance, discussion games etc) | |

Monitoring station:

| | |
|---|---|
| Experiences, obstacles on willingness of passers-by to be engaged (arguments why they would not) | |
| Main reactions of by-passers (-groups) | |
| How long on average did people interact with the station? | |
| Which parts of the interface did they interact with mostly? | |
| What worked best to invite people to stop? | |

3. **Reactions, Results**

| | |
|---|---|
| Duration of average stay of participants | |
| Involvement and areas/activities of interest of participants and audience | |
| Requests and questions Which topics are brought up by participants? | |
| Was change in opinion/attitude/knowledge observed or self-estimated by participants? | |
| Feedback gathered in terms of understandability, suggestions for improvement | |

| | |
|---|---|
| Observed barriers of dialogue (what prevented from participation or active involvement) | |

### 4. Reflection and Documentation

Self-assessment by organisers

| | *explanations* |
|---|---|
| Pros: what went well? | |
| Cons: what didn't work? What could be changed? | |

**Publishable summary (please write a post for the NanOpinion blog, describing your events – in English and your local language)**

| |
|---|
| |

→Add relevant links. Send photos and videos separately.

## 9.2. *Live event questionnaire*


Event
City
Country
Date

**Please take 5 minutes to evaluate today's event.**

1 ○ Female
○ Male

2 **What is your year of birth?**

_____

3 **How did you find out about this event…?**

○ passing by ○ via school
○ saw an announcement ○ by invitation
○ other: _____

4 **In, general, how would you have estimated the level of your knowledge about nanotechnologies BEFORE the event?**

No knowledge at all

0 1 2 3 4 5 6 7 8 9 10

Comprehensive knowledge

5 **In general, how do you estimate the level of your knowledge about nanotechnologies now?**

No knowledge at all

0 1 2 3 4 5 6 7 8 9 10

Comprehensive knowledge

6 **Did this event change your attitude to nanotechnologies?**

○ yes ○ no

If yes, in which direction?

critical

0 1 2 3 4 5 6 7 8 9 10

positive

7 **In general, do you feel now more … ?**

○ informed ○ curious
○ confused ○ overwhelmed

8 **What was especially positive about this even** 9 **Why?(optional)**

10 **What did you like least about this event?** 11 **Why?(optional)**

12 **Do you have any recommendations for future events?**

13 **Did you complete the European survey views and opinions on nanotechnologies at a mobile NanOpinion station or online?**[6]

○ yes ○ no ○ don't know

14 **How interested are you in further information regarding nanotechnologies?**

not at all

0 1 2 3 4 5 6 7 8 9 10

very interested

**Thank you for your time!**

***Please return this questionnaire to the organiser and get your nano-souvenir!***

[6] www.nanopinion.eu

## 9.3. Evaluation of Design Concepts for Monitoring Stations

| Note | Signification |
|---|---|
| 0 | Insufficient |
| 1 | acceptable |
| 2 | Good |
| 3 | Excellent |

| ECSITE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| Attractiveness | 2 | 2 | 3 | 3 | 3 | 3 |
| Accessibility | 3 | 0 | 2 | 3 | 3 | 3 |
| Link to Nano | 1 | 2 | 2 | 2 | 3 | 3 |
| Safety | 1 | 2 | 2 | | 2 | 2 |
| Modularity | 2 | 1 | 1 | 3 | 2 | 2 |
| Easy to assemble | 3 | 3 | 1 | 2 | 2 | 2 |
| Resistant | 2 | 1 | 2 | 2 | 2 | 1 |
| Outdoor and night | 3 | 2 | 2 | 2 | 1 | 2 |
| Portable | 2 | 3 | 1 | 2 | 1 | 1 |
| TOTAL | 19 | 16 | 16 | 19 | 19 | 19 |

| BC | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| Attractiveness | 2 | 2 | 1 | 3 | 2 | 3 |
| Accessibility | 3 | 1 | 2 | 2 | 3 | 3 |
| Link to Nano | 2 | 2 | 2 | 2 | 2 | 2 |
| Safety | 2 | 2 | 2 | 2 | 2 | 2 |
| Modularity | 2 | 2 | 2 | 2 | 2 | 2 |
| Easy to assemble | 3 | 2 | 1 | 1 | 2 | 1 |
| Resistant | 2 | 3 | 2 | 1 | 2 | 2 |
| Outdoor and night | 2 | 2 | 2 | 2 | 2 | 3 |
| Portable | 3 | 2 | 1 | 2 | 2 | 1 |
| TOTAL | 21 | 18 | 15 | 17 | 19 | 19 |

| ZSI | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| Attractiveness | 3 | 0 | 2 | 0 | 3 | 3 |
| Accessibility | 2 | 1 | 3 | 1 | 3 | 2 |
| Link to Nano | 1 | 2 | 3 | 1 | 3 | 3 |
| Safety | 2 | 2 | 2 | 1 | 2 | 1 |
| Modularity | 2 | 2 | 2 | 1 | 3 | 2 |
| Easy to assemble | 2 | 1 | 0 | 1 | 3 | 1 |
| Resistant | 2 | 2 | 1 | 0 | 2 | 2 |
| Outdoor and night | 2 | 2 | 3 | 0 | 1 | 3 |
| Portable | 1 | 1 | 0 | 1 | 3 | 0 |
| TOTAL | 17 | 13 | 16 | 6 | 23 | 17 |

## 9.4. Schedule of events

| Country | City | Event | Date | Partner responsible | April | May | June | July | Aug | Sept | Oct | Nov | Dec | Jan | Feb | Mar | April | May | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Croatia | Various | MS: Science Festival | 22-27 April 2013 | BC | | | | | | | | | | | | | | | |
| Italy | Milan | MS: Consortium meeting | 21-22 May 2013 | Ticonuno | | | | | | | | | | | | | | | |
| Italy | Perugia | SL: Jazz festival | 5-14 July | Pisquadro/Ecsite | | | | | | | | | | | | | | | **Monitoring Station A** |
| Italy | Lago Trasimeno | SL: Isola di Einstein | 7-8 September | Pisquadro/Ecsite | | | | | | | | | | | | | | | |
| Portugal | Estremoz | SL: Science in the Street | 14 September 2013 | Ciência Viva /Ecsite | | | | | | | | | | | | | | | |
| Portugal | Estremoz | SL: SunDuathlon | 26-27 October | Ciência Viva /Ecsite | | | | | | | | | | | | | | | |
| Spain | Coruna | SL: Community centres | | MC2/Ecsite | | | | | | | | | | | | | | | |
| Spain | Coruna | SL: Town Square María Pita Coruña | | MC2/Ecsite | | | | | | | | | | | | | | | |
| Spain | Barcelona | SL: Literature Festival | | BC | | | | | | | | | | | | | | | |
| Spain | Barcelona | MS: hospital | | IrsiCaxia | | | | | | | | | | | | | | | |
| Lithuania | Vilnius, Klaipeda | MS: Nanoweek | 6-12 May 2013 | LYITCC | | | | | | | | | | | | | | | |
| Sweden | Gothenburg | MS: Ecsite Conference | 6-8 June 2013 | Ecsite | | | | | | | | | | | | | | | |
| Germany | Dortmund | MS: Ruhr Museum Night | 06 July 2013 | BAuA/Ecsite | | | | | | | | | | | | | | | |
| Czech Republic | Ostrava | MS: Colours of Ostrava | 18-21 July2013 | STSSCZ | | | | | | | | | | | | | | | |
| Denmark | Aarhus | MS: Food Festival | 6-8 September 2013 | AU | | | | | | | | | | | | | | | |
| Czech Republic | Pilsen | SL: Fashion Show | 14-20 October | Techmania/Ecsite | | | | | | | | | | | | | | | |
| Czech Republic | Pilsen | SL: Film Festival | 9-13 November | Techmania/Ecsite | | | | | | | | | | | | | | | |
| Czech Republic | Prague | SL: Supermarket | | BC | | | | | | | | | | | | | | | **Monitoring Station B** |
| Czech Republic | Prague | MS during Week of Science, National Theatre | 20 - 27 November | STSSCZ | | | | | | | | | | | | | | | |
| Czech Republic | Pardubice | MS during Art&Sci festival | | STSSCZ | | | | | | | | | | | | | | | |
| Poland | Warsaw | MS | | BC | | | | | | | | | | | | | | | |
| Germany | Berlin | MS | | BC | | | | | | | | | | | | | | | |
| Switzerland | Bern | SL | | BC | | | | | | | | | | | | | | | |
| Austria | Vienna | MS | | ZSI | | | | | | | | | | | | | | | |
| UK | London | MS | | BC | | | | | | | | | | | | | | | |
| Belgium | Mechelen | MS: various around Mechelen | | Technopolis/Ecsite | | | | | | | | | | | | | | | |
| Germany | Berlin | MS | 7-8 Sep 2013 | BfR | | | | | | | | | | | | | | | |
| France | Bordeaux | MS: round table | | Courrier | | | | | | | | | | | | | | | **Monitoring Station C** |
| Greece | Athens | MS | | BC | | | | | | | | | | | | | | | |
| Bulgaria | Sofia | MS | | BC | | | | | | | | | | | | | | | |
| Romania | Bucharest | MS | | BC | | | | | | | | | | | | | | | |
| Italy | Rome | SL: Science Festival | 15-19 January | Bambini/Ecsite | | | | | | | | | | | | | | | |
| Italy | Rome | SL: Shopping Mall | | Bambini/Ecsite | | | | | | | | | | | | | | | |
| Italy | Rome | MS | | BC | | | | | | | | | | | | | | | |
| Turkey | Istanbul | SL: Shopping Mall | | TSCF/Ecsite | | | | | | | | | | | | | | | |
| Israel | Tel Aviv | MS | | BC | | | | | | | | | | | | | | | |