



The artworks on nanotechnology are examples of the works that were made by students participated in the NanoArt competition in Lithuania (2013). Published by LMNSC.

INTRODUCTION

DISTILLED NANOIDEAS is an interactive contest for the school teachers and their students. It is their own laboratory, amusement park and arts' studio where teachers and students are invited to present and share a world-changing idea from the nanotechnology world. The European Commission under the Seventh Framework Programme (FP7) funds this action in the framework of the NanOpinion project. The idea of this competition is to promote a meaningful dialogue about nanotechnologies (NT), present the Ethical, Legal & Social Aspects of NT, use NanOpinion tools and engage people in active creation of tomorrows' world.

Via a central web portal: www.nanopinion.eu we provide teachers, their students and the public a package of activities, materials, and tools for enabling the integration of nanotechnologies into school curricula. The competition invites teachers to work together with their students with minimum one tool developed by the NanOpinion project (*compulsory*, available at: <http://nanopinion.eu/en/education>) and educational tools on nanotechnology from the multimedia repository proposed by the project (*optional*, available at: <http://nanopinion.eu/en/about-nano/multimedia-repository>).

Open your creativity window and show your ideas through arts using every possible technique (eg. painting, sculpturing etc.) and share your ideas through a 3 min. video, PPT or photo album. Show your works to others and become the best ambassador! The contest **will start 31 January** and **will end on 15 April 2014**. The winners will be announced on the NanOpinion portal and Facebook. You can do it!

OBJECTIVES

The main objective of this competition is to promote a meaningful dialogue about nanotechnologies (NT), present the Ethical, Legal & Social Aspects of NT, use NanOpinion tools and engage people in active creation of tomorrows' world. This competition invites

teachers to work with their students by using tools developed by the NanOpinion project and other educational tools on nanotechnology from the multimedia repository proposed by the project.

A second objective is to reward the innovative and inspiring approaches taken by teachers to teach their students nanotechnology and the Ethical, Legal and Social aspects. These aspects are involved in the main topics of this competition. Students' creativity and learning efforts will be rewarded. The aim is to encourage teacher to launch a project for their classrooms.

CATEGORIES

In total three (3) best works will be selected in the following categories (one per category):

- **13–15 years** old group of students. The group can consist of 2-5 students, led by their teacher.
- **16–18+ years** old group of students. The group can consist of 2-5 students, led by their teacher.
- **Public choice** through official NanOpinion Facebook site.

COMPETITION TERMS AND CONDITIONS

Participating countries

The competition is open to teachers and students from **all 28 EU Member States**: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom and the **associated countries**: Iceland, Liechtenstein, Norway, Switzerland, Andorra, Israel, Turkey and FYROM.

Submission

The competition will open on 31 January 2014. From that date until 15 **April 2014**, all teachers and their students are welcome to submit one entry or more as a product of 2-5 different students' teams work, until 15 April 2014, by midnight GMT, through the online submission tool provided on the NanOpinion website. One teacher can submit more than one entry, but only if the entries are from different students groups. One students' team can submit only one entry. Participants can only win in one category, so if they are initially selected as winner in two categories, participants will be asked to choose the one they prefer.

The selection process will last for one and a half month, from 15 April till 2 June, 2014. The public selection process through social media ([official Nanopinon Facebook site](#)) will last from 15 April till 1 June, 2014. Selection results will be announced on 2 June, 2014 via email (to the winners) and NanOpinion project's official website: www.nanopinon.eu, Facebook page: <https://www.facebook.com/nanochannels>.

Language of the competition

Entries may be submitted only in English.

HOW TO PARTICIPATE IN THE COMPETITION

Who can participate?

School teachers (secondary and high education) and their students (two age categories: 13-15 years, 16-18+ years) can participate in the competition. The teachers must submit the entries.

We encourage especially teachers to try and use new Nanopinon educational tools and encourage students to share their ideas about nanotechnologies. We can create better world and citizen-led science all together.

Main topics

The project of the class should be articulated around one or several of the three topics below:

1. **My opinion on Nanotechnology**, in general or a specific aspect.
2. **Nanotechnology around us**. What kind of nano materials can be found in nature? How are these aspects implemented in nowadays products? How do they work?
3. **Invent your own product!** Explain how it will work, how it is relevant to nanotechnology.

How should the nanoideas be distilled?

To make it simpler (and more scientific), here is a step-by-step guide:

1. Invite the students to choose an idea inspired by the nanotechnology world that they like and want to present
2. Choose the form, e.g. art composition, video, ppt, photo album.

3. Organise the students in teams (2 to 5 students) for a planning session.
4. Invite the students to decide how to share the tasks described below and who will be responsible for them:
 - a. Writing the script (description of the art composition/video clip/ppt/photo album, who is involved, where the action will take place etc.)
 - b. Sketching a quick storyboard (for instance the clip can be divided into 2-3 separate scenes: an interview, a shooting of your students working and a shooting of a lesson)
 - c. Shooting of the video or taking pictures using a camera, a smartphone or a webcam. Take lots of footage, you can always cut it later.
 - d. Edit the video or other form of your work (cut the parts you do not like, add the sound, include credits).
5. If you choose to make a video, once you and your students are happy with the results, upload the video on your own YouTube channel.
6. If you choose to make a photo album, once you and your students are happy with the results, upload the photos on your own Flickr, Picasa Web account etc.
7. If you choose to make ppt, once you and your students are happy with the results, upload the presentation on the NanOpinion portal through registration form.
8. Fill in the form on the NanOpinion website.
9. Invite your students to work as hard as they can on advertising their work on *YouTube*/Facebook page.
10. Wait for *June 2014*, when the winners will be announced and awarded.
11. If you have any questions or problems, contact NanOpinion team by e-mail: nanocompetition@lmnsc.lt.

How to submit for the competition?

To submit the entry to the competition, teachers should fill the online form on the official NanOpinion website and upload their entry through the portal. It can be done until 15 April 2014, by midnight GMT, through NanOpinion website.

The entry as the results of the students group work can be submitted only by the teacher in one of the following formats:

1. Video files - YouTube links only will be displayed in the gallery on entries on NanOpinion website. Videos presented for the contest must meet the following requirements:
 - a. The video should be equal or shorter than 3 minutes.
 - b. Quality must be high enough for clear understanding of speech and picture.
 - c. Correct language must be used – avoid jargon and other inappropriate aspects of speech.
2. Power Point presentation
3. Photo sets – the photo album must be less than 10 MB (It can be uploaded in Flickr, Picasa Web or by using other tools)

Every entry prepared by 2-5 students group should include the photo of all authors (it can be published on the last ppt slide, or as a final photo in the album, or at the end of the movie).

Products' quality must be high enough for a clear understanding of the series of composition.

In addition to the students' product, the participants are expected to consolidate all relevant information through an online form available on the nanOpinion website. Within this form, participants will be asked to provide the following details:

1. What Nanotechnology subject did you choose for your project and what is the pedagogical objective?
2. Which teaching materials and/or tools did you use? Any of the NanOpinion multimedia repository?
3. What was the assignment you gave your students?
4. The project title
5. Short description (max. 600 characters)
6. Name, surname of the teacher
7. Class/Grade level/Age-range of the participants
8. Country, school name
9. Contacts details (e-mail)
10. The file name of ppt or link to the photo album (it can be published on FlickrR, Picasa Web etc.), or YouTube link to the video. Then upload the file if it is necessary.

Evaluation procedure

After the submission deadline on 15th April 2014, all works (ppt and photo albums which haven't been published before) will be published through social media website. All videos will be published directly as soon as Youtube link will reach our team. All works will be judged by European experts team according to the following procedure:

Round 1 – European expert evaluation

A first evaluation round will be conducted by a group of experts composed of NanOpinion partners, education experts and experts with the depth knowledge on nanotechnology. This panel will analyse all entries, with again, a distinction between the two age groups.

Once the best entries are identified, experts from the NanOpinion project partners will be the initial evaluators and will draft summaries that highlight the core messages and important aspects of the project. These accounts will then be presented to the grand European jury, along with all the details of these finalist entries.

Round 2 – European Grand Jury evaluation

Only the very best entries will be selected and presented to the Grand Jury, composed of the advisory board and members of the NanOpinion consortium, different specialists in nanotechnology, education and relevant aspects. From this shortlist, the jury will award 1 winner per age category.

Additional Round – Public evaluation

After all works will appear online (**April 15th till May 25th 2014**), the public will become an evaluator and by clicking like you can choose the most liked work. One best-of-the-best work will be chosen by public and awarded “public choice”.

Selection criteria

Entries presented for the competition will be evaluated under the following criteria:

1. **Relevance** to nanotechnology topic and **accuracy** of the knowledge presented.
2. **Originality of entries**, pertinence, novelty, creativity and didactical approach, will all be taken into account during the evaluation process. All works should be funny, interesting, attractive and in any other way original.

3. **Pedagogical Value:** Clear goals and objectives, motivation, presentation of resources, specific learning tasks, adaptability to individual needs will be taken into account during the evaluation process. **Impact** of the actions undertaken by teachers and students. Judges will be looking for evidence of successful knowledge transfer.
4. **Relevance** of the actions designed and implemented within the project. Contributions should demonstrate a clear link to the competition's requirements. Moreover, the jury will also consider if the actions undertaken are compatible with students' age group.
5. **Clarity of ideas and conclusions**, explaining in a clear way, demonstrating a good understanding of the theme and conveying convincing implementation methods, solutions and messages.
6. **Effective communication** of the project and its results.
7. **Presentation of entries**, style, layout, design and good use of technology will be considered.

Entries that have successfully passed moderation will be evaluated according to the criteria mentioned above.

All decisions reached by the jury are final and may not be contested.

Awards & prizes

All contestants are going to be popular across Europe and associated countries. When the contest will be finished the European jury will choose the best-of-the-best works that will be awarded by nanotechnology magical products. A total of **3 winners** (one per each age category and public choice) will receive main prize: **NanoTool Kit Box** which each box value is 150-170 Euros.

Other 2-3 good works (chosen by European Grand Jury) and the best NanOpinion ambassadors team will win stylish Nan**prizes** (it's small, but really worthy).

Every participant will receive the certificate of participation which will be send by email to the participants whose entries have successfully passed moderation.

Contact point

For any questions related to the competition, participants should contact Nanopinion team nanocompetition@lmnsc.lt to get assistance.

Important information

Legal and ethical issues

NanOpinion reserves the right to modify the terms and conditions of the competition at any time. Any notifications or possible changes will be published on the website and will apply as of the date of publication. Before submission, special attention should be given to the following points:

All participants must comply with European copyright laws.

Entries may not contain statements, facts, information or quotations that could denigrate or harm any person or group of people; neither statements, images facts, information or quotations encouraging persecution of people on the grounds of race, opinion, nationality, sex, religion, profession or other persuasion, nor entries encouraging crime or law-breaking will be allowed.

It is assumed that all persons photographed or filmed have given their (or a parent's) consent for publication.

Please note that an entry may be disqualified if it breaks any of the rules under "Legal and ethical issues".

Copyright issues

It's not always easy to know which resources are available to share and re-use, which are protected, or which cannot be used at all. Teachers often share images, music, and other media for educational purposes - sometimes without the consent of the original author, and most often, without being aware of any wrong-doing.

For further details on European copyright laws, please consult the European Commission's website: Copyright in the information society. You can find materials for re-use on the Creative Commons website.