

## **BlueRemediomics Latvia Lampa Festival Public Event: Doing No Significant Harm (DNSH).**

### *The Lampa Event*

The renowned discussion festival “Lampa” was the location for the next EU Horizon Europe project BlueRemediomics’ series of [public engagement and Town Hall events](#). These have explored approaches to the meaning of the Doing No Significant Harm (DNSH) principle, alongside sharing groundbreaking science in a provocative and interactive manner.

[Our event](#) “What do we have in common with cyanobacteria in Latvian waters” on the evening of 20 June 2025 was held in Latvian and was part of the “[Latvian Institute of Aquatic Ecology](#)” 30<sup>th</sup> anniversary celebrations. Blue-green algal blooms (also cyanobacteria blooms) are a subject of particular importance in the Baltics. It affects marine as well as freshwater environments, and the subject was also explored by other discussion panels during that day.

Chaired by Anda Ikauniece (Latvian Institute of Aquatic Ecology, [Latvian Biomedical Research and Study Center](#), BlueRemediomics) and with an expert panel of Alise Bogdanova, Iveta Jurgensone and Dāvids Fridmanis (Latvian Biomedical Research and Study Center, BlueRemediomics) the panel explored whether algal blooming is an entirely negative phenomenon or a natural process within water bodies. Discussion also addressed the role, risks, and research of blue-green algae in Latvian waters as well as dangers of direct contact with cyanobacteria, what blue-green algae tell us about our waters, and how we can coexist with them.

### *Panel and audience discussion*

Benefitting from the opportunity to hold an event in a very public form (the estimate of attendance was over 20,000 this year), the audience were firmly involved. They were, however, safely based on land, while the panel was in the pond which apparently had undergone blue-green algae blooming. Initial questions were posed to the audience using Slido:

- Do you know what Cyanobacteria are? (75% yes)
- Are blue-green algae dangerous? (100% yes)
- Can Blue-green algae studies harm the environment? (100% No).

Anda then asked the panel to address 3 questions:

- What is your experience with blue-green algae and what are the research methods in use for cyanobacteria of which you are aware?

- Could cyanobacteria be useful for mitigating climate change considering their resilience and adaptation through several millennia?
- What does the principle of DNSH mean for you and what would you comment on that linked to the topic of blue green algae?

Alise said that cyanobacteria in freshwater are quite harmful due to their high biomass and decomposing organic matter afterwards, which consumes most of the oxygen in water. Cyanobacteria are not integrated in the freshwater food webs therefore, in their toxic phase, they can impact fish. The current University courses include information on negative aspects of cyanobacteria, but the study methods are tackling basic taxonomic analysis. She said that when considering the DNSH principle, we should act in a way not to increase impact of cyanobacteria on freshwater ecosystems.

Iveta said that cyanobacteria are the first autotrophs on the Earth, and we should thank them for developing ability of photosynthesis and consequent oxygen production. Their abundance in marine waters is lower due to reduced stability of water masses and different nutrient ratio compared to freshwater ponds and lakes. We are not aware of the toxicity levels cyanobacteria are developing during summers, and this should be studied and monitored more properly. When considering the DNSH principle, it is very important to have a balance in the ecosystem, so that no single organism group dominates and potentially harms others. The best illustration of busting the myth that all blue-green algae are toxic is that there is, in fact, consumption of spirulina (which is a filamentous cyanobacteria) as a food supplement.

Dauids said that unlike bacteria and various eucaryotic organisms, cyanobacteria have not attracted a high level of research interest in molecular studies beyond those that focus on environment, taxonomic identification and microbial community structures. The most probable reason for that is their limited usefulness in biotechnology. While reflecting on current and previous discussions it was speculated that, due to cyanobacteria's ability to acquire nitrogen from air, there is a potential to use them in mobile water treatment systems that focus on removal of excess phosphorous from water that is poor in nitrogen. In addition, although there has been debate on employment of cyanobacterial viruses or cyanophages for algal bloom control, the subject is controversial, because extensive studies are required to ascertain that application of such approach follows the DNSH principle.

### Reflections and future action

Key themes emerging from panel speakers are that science and society are still very much focusing on humanity's needs and convenience. We are not respecting Nature's potential, and this, in turn, leads to unwelcome responses from Nature. Cyanobacteria have an evolutionary potential for adaptations we are not fully aware yet and it can be used in a way which helps to maintain balance within various ecosystems and Doing No Significant Harm.

The concept of "Doing No Significant Harm" runs through BlueRemediomics and the Lampa event makes a valuable contribution to our previous discussions in "Town Hall" events in [Galway](#), [Barcelona](#), [Aberdeen](#) and [Bergen](#). The BlueRemediomics team will build on the feedback and discussions and use these to develop suggestions for new protocols in identifying and reflecting on areas for possible harms: environmental, economic, social and other kinds and how they can be considered, managed and if possible, avoided at the start of funding calls and projects, but also on an ongoing basis.

Photos from the event:

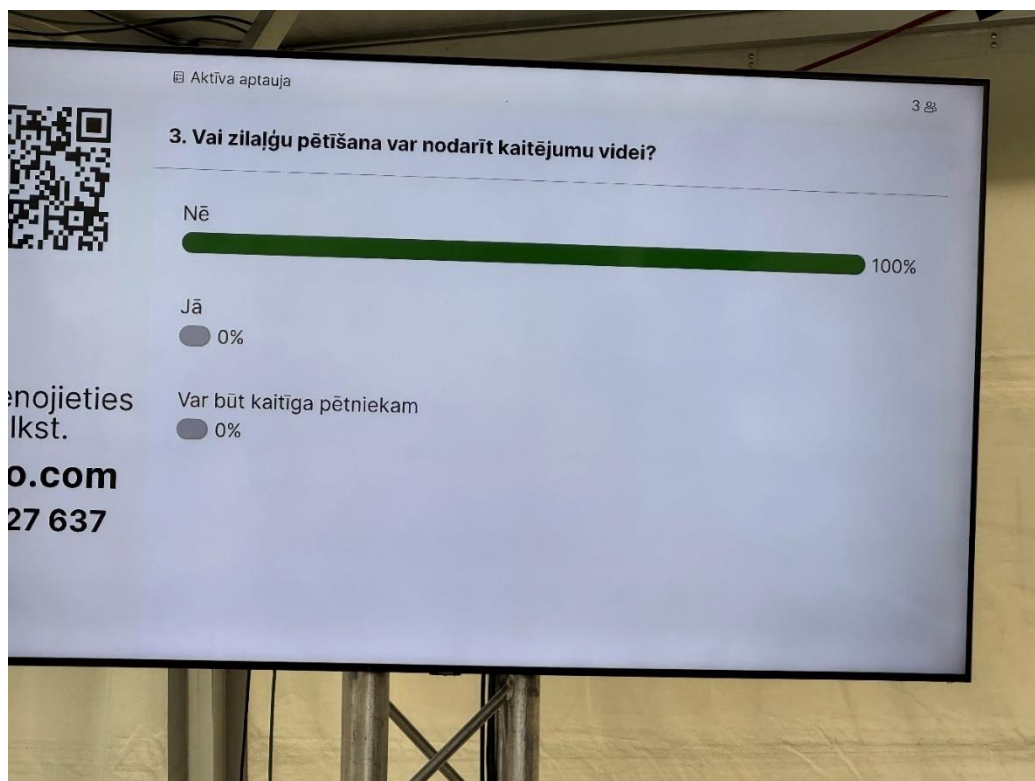














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