

Activities related to promoting equality, diversity, and inclusion (EDI) in research and innovation and transitioning to Net Zero emissions in 2023

Tallinn, January, 31, 2024

This document offers a concise chronological summary of the activities undertaken by the Estonian Academy of Sciences in 2023, encompassing compiled articles and conducted interviews specifically associated with the promotion of equality, diversity, and inclusion (EDI) in research and innovation, along with a commitment to transitioning to Net Zero emissions in 2023. Additionally, relevant administrative activities in the Estonian Academy of Sciences for the years 2023 and 2024 are detailed at the end of the document.

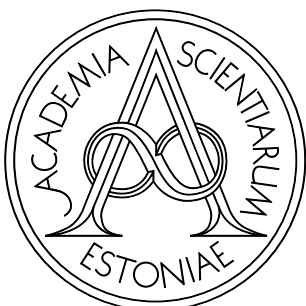
Articles, interviews, and events related to promoting equality, diversity, and inclusion (EDI) in research and innovation and transitioning to Net Zero emissions in 2023

On February 16, 2023, a seminar organized by the Estonian Hydrogen Cluster titled "Where to store surplus renewable energy in 2030?" took place at the Estonian Academy of Sciences. The event in Estonian is available for retrospective viewing [here](#).

On February 27, 2023, the Academy Member Enn Lust and Ove Oll, a researcher in physical chemistry at the University of Tartu, discussed the possibilities of storing wind energy. The article in Estonian can be read [here](#).

On March 16, 2023, the Academy Member Jaak Aaviksoo wrote in an opinion piece for Estonian Public Broadcasting that the European Union, in pursuing a green transition, should focus more on solving the greenhouse gas emission issue through market-based mechanisms and economically viable solutions, rather than administrative arrangements. The Estonian-language opinion piece can be read [here](#).

On March 20, 2023, Academy Member Jarek Kurnitski spoke on the Estonian Television morning programme "Terevisioon," stating that renovating apartment buildings in large cities is a more cost-effective solution compared to buying completely new apartments. The episode in Estonian can be viewed [here](#).



On March 23, 2023, Academy Member Agu Laisk wrote on the Postimees portal that in order to convert the energy coming from the Sun into electricity with minimal heat loss, it is not enough to clumsily imitate photosynthesis. It is also necessary to mimic the respiration process that occurs in plants. In many aspects, solar panels fall short compared to natural photosynthesis. The article in Estonian can be read [here](#).

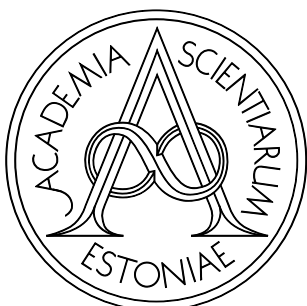
On March 29, 2023, Academy Member Jarek Kurnitski discussed on the Vikerraadio broadcast "Reporteritund" a directive from the European Parliament concerning the renovation of older residential buildings. The aim is to improve the energy efficiency of these buildings and limit the greenhouse gas emissions associated with energy consumption. Alongside other guests on the show, Jarek Kurnitski explained the new objectives, what is required from whom, and where the funding will come from. The episode in Estonian can be listened to [here](#).

On April 1, 2023, Academy Member Anne Kahru wrote in the Postimees portal that the environmental footprint of items such as bioplastics, wind turbines, solar panels, and electric cars has certainly not been adequately explained. Although each of these technologies exhibits unwanted environmental impacts at some stage of their life cycle, it is not sensible to needlessly hinder technological progress. However, at the same time, this progress should not be achieved at the expense of human and environmental health. The article in Estonian can be read [here](#).

On 20 April 2023, the Baltic Conference on Intellectual Cooperation was held in Riga. The conference was jointly organized by the academies of sciences in Estonia, Latvia, and Lithuania. It discussed and analysed various aspects of energy and energy problems, including energy resources (such as renewable energy production methods), energy storage, safe energy supply, efficient and sustainable energy use. Additionally, the conference focused on the actualization of social sciences in understanding and implementing energy policy. The discussions also covered the role of science and added value in the economic potential of society for the production and rational use of natural resources in the context of climate change. More information can be found [here](#) in English.

On April 29, 2023, Academy Member Enn Lust wrote in the Postimees portal that considering the environmental friendliness of electrochemical technologies and "green" hydrogen, developed countries are transitioning to new technological solutions within the next 10–20 years. This transition is expected to lead to a society with affordable and resilient energy. The article in Estonian can be read [here](#).

On May 6, 2023, Academy Member Kalle Kirsimäe wrote in the Postimees portal about the possibility of a green welfare economy. He emphasized that achieving this goal requires understanding, societal



unity, a willingness to compromise, and responsible behaviour. The article in Estonian can be read [here](#).

On May 15, 2023, the president of the Estonian Academy of Sciences, Tarmo Soomere and Academy Member Urmas Kõljalg participated in the European Climate Conference in Warsaw, Poland. During the conference, 90 scientists from 45 countries discussed strategies for adapting to climate change and mitigating its effects. Tarmo Soomere moderated plenary discussion on "Infrastructure, Mobility, and Risks".

To foster a common understanding and plan adaptation and mitigation activities through local, regional, and global cooperation, a joint statement titled "Warsaw Communiqué on Climate Change in Europe" was adopted. The English version of the communiqué can be found [here](#). More information about the European Climate Conference can be found [here](#). The communiqué was extensively commented on 19 July (see below)

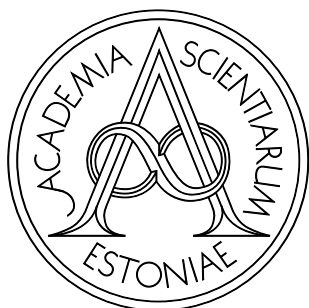
On May 24, 2023, the Estonian Academy of Sciences disseminated to the Estonian public the report "Future of the Gas" from the European Academies' Science Advisory Council (EASAC). In the report, scientists highlighted that achieving a carbon-neutral economy is not possible without a significant reduction in the use of natural gas. Further details can be read [here](#).

On June 15, 2023, Academy Member Jarek Kurnitski wrote in the economic portal of the newspaper Postimees about the transformative changes taking place in the construction sector. The focus is shifting from traditional energy efficiency improvements to reducing the carbon footprint of buildings. The article also emphasizes the growing demand for professionals with expertise in green skills. The article in Estonian can be read [here](#).

On June 22, 2023, Academy Member Kalle Kirsimäe discussed in the Vikerraadio broadcast "Huvitaja" the intentions of mining companies to start extracting resources from the deep seabed. Mining from the seabed has the potential to lead to an ecological catastrophe. Concerns were also expressed by the European Academies' Science Advisory Council (EASAC), which, in its statement, called for a moratorium on deep-sea mining until environmental safety in mining activities can be ensured. The episode can be listened to [here](#).

On July 19, 2023, President Tarmo Soomere wrote on the Postimees portal about climate change and the arrival of a new era, a period in which human activities have the most significant impact on our biosphere, based on "Warsaw Communiqué on Climate Change in Europe". The article in Estonian can be read [here](#).

On July 27, 2023, President Tarmo Soomere commented on the KUKU radio broadcast 'Kuku pärastlõuna' regarding a study published in the



journal Nature Communications. The study explained that the Atlantic Ocean circulation system may collapse soon due to climate change. While the overall climate system will continue to function, it may shift to a different state, and the climate in our region could be different in 200–300 years. The episode in Estonian can be listened to [here](#).

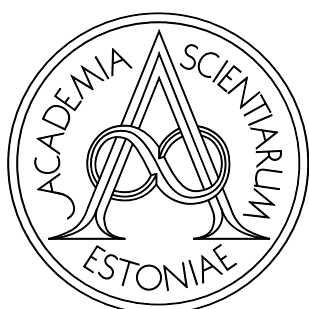
On August 23, 2023, the Climate Council, launched by the Ministry of Climate, commenced its activities. Academy Members, Veiko Uri and Jaak Vilo, have been elected to serve on the council. The Climate Council is providing support in the preparation of a new climate law. More details can be read [here](#).

On August 28, 2023, President Tarmo Soomere discussed science ethics, the updated European Code of Conduct for Research Integrity, and the role of ethical codes in research on the Russian-language morning programme "Kofe+" on Estonian Television. The programme can be viewed retrospectively [here](#).

On August 29, 2023, Academy Members Krista Fischer, Anne Kahru, Maarja Kruusmaa, Maris Laan, Tiina Randma-Liiv, Anu Realo, and Ellu Saar wrote an opinion piece in the newspaper Postimees on the delicacy of surveys conducted with scientific research. They emphasized the need for thorough explanation and a tactful and respectful approach towards participants in research studies. More details can be read [here](#) in Estonian.

On September 5, 2023, the Estonian Academy of Sciences hosted an event to acknowledge and celebrate the L'Oréal-UNESCO Young Talents Baltic programme "Women in Science." The ceremony highlighted remarkable female scientists from Estonia, Latvia, and Lithuania, recognizing their research achievements and significant contributions to the fields of science and innovation. The awards were presented by the patron of the „Women in Science“ programme, former president of the Republic of Latvia, Mrs Vaira-Vike Freiberga and the former president of the Republic of Estonia, Mrs Kersti Kaljulaid. „Women in Science“, in collaboration with the Estonian Academy of Sciences and UNESCO Estonia National Commission, stands as the sole support initiative in the Baltic region dedicated to fostering the professional development of female scientists and aiding them in accomplishing important career goals. The award ceremony in English can be viewed [here](#).

On September 20, 2023, the Estonian Academy of Sciences hosted the Science Afternoon (XXV) titled "Polar Research in Estonia." The English-language seminar was organized by the U.S. Embassy in Tallinn and the Estonian Academy of Sciences, aiming to recognize their long-term collaboration and discuss shared interests in Arctic and Antarctic issues. The seminar also deliberated on the roles of the Arctic and Antarctic in the global ecosystem and explored opportunities for small



countries to participate in international scientific research. More information can be found [here](#) in English.

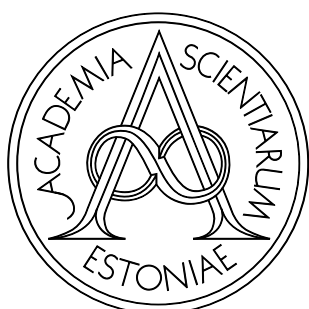
On September 22, 2023, a seminar on research ethics titled "How to support scientists in conducting ethical research?" took place at Tallinn University of Technology. The seminar was organized by the Estonian Research Council. During the event, a study on the state of research ethics in Estonia was presented, including the development and piloting of the methodology for the Estonian Research Ethics Survey ([Eesti teaduseetika küsitluse meetoodika väljatöötamine ja piloteerimine. Lõpparuanne, 2023](#)). Several Estonian universities, including the Estonian Academy of Arts, Estonian University of Life Sciences, Tallinn University of Technology, Tallinn University, and the University of Tartu, provided an overview of the implementation of research ethics in teaching and research.

Tarmo Soomere, the President of the Estonian Academy of Sciences, introduced the participants to the updated European Code of Conduct for Research Integrity (ALLEA, 2023), its role as a pioneer in research ethics, and its significance as a key document within the institutions and programmes of the European Union in 2023. The President also explained important differences and similarities between Estonia's Good Research Practice document and the European Code of Conduct for Research Integrity. The seminar in Estonian can be viewed on the Estonian Research Council's [YouTube channel](#).

On September 22-23, 2023, the members of the energy committee of the Estonian Academy of Sciences actively participated in the prominent energy event, Positron, held in Tallinn. Arvi Hamburg, the chairman of the committee, moderated a discussion on „How do different energy production methods go hand in hand?“ Throughout the event, the committee highlighted the attractiveness of the energy sector to young people, showcasing opportunities for self-realization and addressing challenges, including applications of research and development (R&D). Additional information about the event can be found on the [Positron website](#).

On September 26, 2023, President Tarmo Soomere delved into the realm of polar research and the profound scientific interest that the Arctic and Antarctic regions hold for Estonian scientists. The discussion took place on the Russian-language morning programme „Kofe+“ on Estonian Television. The episode in Russian can be viewed [here](#).

On October 6, 2023, „the 7th Hydrogen Day: Hydrogen and Modern Energy Technology," was hosted at the Chemicum of the University of Tartu. The event featured an overview of the current state of hydrogen technology development and existing solutions in both Estonia's private and public sectors, as well as in the Baltic States. Additionally, the event highlighted the production capacity of green hydrogen and outlined



prospects for infrastructure development. More information in English can be found [here](#).

On October 10, 2023, Academy Member Jarek Kurnitski wrote about the renovation of old poorly insulated apartment buildings with the support of Kredex loans, highlighting that data from the last five years show a significant 52% reduction in heating costs, indicating considerable energy savings. Academy Member Kurnitski is involved in a research project that compares the reconstruction of apartment buildings in Estonia and Finland, examines the use of technical solutions, and evaluates the effectiveness of renovations. The article in Estonian can be read [here](#).

On October 13, 2023, an article titled "Implementing the Code of Research Ethics for the Protection of Scientists" was published in the cultural newspaper Sirp. The article was based on the presentation given by the President of the Estonian Academy of Sciences, Tarmo Soomere, on September 22. In the article, Soomere emphasized the growing need to not only evaluate scientists and their work, implementing corrective measures if necessary but also to provide them with fair protection and support. The article in Estonian can be read on the [Sirp website](#).

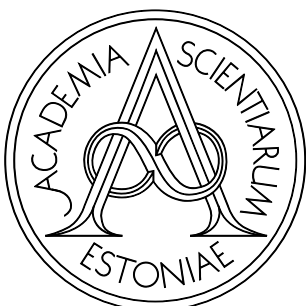
On November 22, 2023, President Tarmo Soomere spoke to participants at the Fair Transition Forum in the Jõhvi Concert Hall about the green transformation. The forum can be viewed retrospectively on the [website](#) of the University of Tartu.

On December 16, 2023, Academy Member Jarek Kurnitski wrote an article on the Postimees newspaper's web portal about the green transition titled "Mõistlik rohepööre vajab tasakaalu tõhususe ja taastuvenergia vahel" (A Sensible Green Transition Requires Balance between Efficiency and Renewable Energy). The article in Estonian can be read [here](#).

On December 17, 2023, Academy Member and Professor of Materials Science at Tallinn University of Technology, Maarja Grossberg-Kuusk, gave an interview to Vikerraadio about the possibilities of using solar energy in the Estonian climate. The interview in Estonian can be listened to [here](#).

On December 20, 2023, President Tarmo Soomere, spoke on Estonian Television's morning programme „Terevisioon“ about entering a completely new climate era. He emphasized the need to abandon fossil fuels and advocated for insulating buildings to save energy. The interview in Estonian can be watched on the Estonian Television [website](#).

On December 23, 2023, Tarmo Soomere wrote an article on the Postimees portal, stating that the energy needed for the green transition is provided by nature itself. The challenge lies in finding effective ways to



store this energy and reaching a consensus on costs. The article in Estonian can be read [here](#).

Additional administrative activities in the Estonian Academy of Sciences in 2023 and 2024

In the summer of 2023, rubbish bins for different types of waste were installed in the publicly accessible areas of the Academy, with separate containers for sorting, and general rubbish bins were removed from the cabinet offices. Corresponding containers were already previously available in the Academy's courtyard. Additionally, the use of reusable glass, porcelain, and metal dishes, as well as cloth towels, is encouraged in the Academy's premises and events.

In early 2024, the Women Academy Members' Council of the Estonian Academy of Sciences was established by the decision of the board, comprising all female Academy Members of the Academy. Among the activities of the Women Academy Members' Council are topics such as gender balance, equal treatment, the reconciliation of family and work life, academic succession, cross-disciplinary collaboration, and research ethics.

The Estonian Academy of Sciences is currently actively working on its gender equality plan and is planning to finish it during the first semester of 2024.

