

## Pasaules latviešu zinātnieku kongress

### 27. jūnijs

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10:00 - 17:00

#### **Visits to Latvian Research Institutions**

Registration for visits to Latvian research institutions and more information <https://www.zinatneskongress.lv/side-events>

17:30 - 18:30

Hanzas Perons

#### **Registration**

Hanzas Street 16a, Riga

18:30 - 22:00

Hanzas Perons

#### **The Grand Opening of the 5th World Congress of Latvian Scientists**

The grand opening of the Congress will take place on Tuesday, June 27th 2023, 18:30-22:00, in the culture and entertainment centre Hanzas Perons. The event will be marked with speeches by the Minister of Education and Science Anda Čakša, the President of Latvia (1999-2007) Vaira Vīķe-Freiberga, the Ambassador-at-Large for the Diaspora at the Ministry of Foreign Affairs of Latvia Elita Gavele, and the Minister of Economics Ilze Indriksone and Adviser to the Minister on Innovation and Digitization Issues Ieva Siliņa.

At Hanzas Perons, each participant will have the opportunity to both see and feel the works of Latvian artist Voldemārs Johansons, which combine visual, auditory, and scientific impulses. The artworks have been specially commissioned for the 5th World Congress of Latvian Scientists, and have been based on insights from quantum physics.

The voices of Riga Technical University (RTU) men's choir "Gaudeamus", led by conductor Ivars Cinkuss, will ring the Perons' halls in honour of the upcoming XXVII Nationwide Latvian Song and Dance Festival, while the RTU folk dance ensemble "Vektors" will demonstrate the most enchanting Latvian folk dances and invite the guests to dance alongside them.

### 28. jūnijs

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08:00 - 17:00

National Library of  
Latvia

#### **Registration**

Mūkusalas Street 3, Rīga

09:00 - 09:30  
Ziedonis Hall

### **Opening Remarks**

Opening remarks by the President of Latvia Egils Levits, the Prime Minister of Latvia Krišjānis Kariņš and the Minister of Education and Science Anda Čakša.

09:30 - 10:30  
Ziedonis Hall

### **Opening Plenary Session**

Who will be the first to find out Latvia's future – scientists or artificial intelligence?

What will the future society look like, how to prepare and adapt to the future climate and environment and what are the main challenges of today and the future? These and other questions will permeate the discussions of the opening plenary session of the Congress, with the overarching focus on science today and tomorrow.

In the opening plenary session, scientists and representatives from various fields and backgrounds will address wide-ranging issues and questions, such as how science and scientists can make our future as good as possible, thereby increasing the likelihood that the future will be better for our society and our planet.

Speakers:

Una Bergmane,  
Egils Levits,  
Andris Ambainis,  
Liza Aizupiete,  
Kristians Brekte, Ivars Vanadziņš

Moderator:

Gatis Krūmiņš

09:30 - 16:30  
Conference Hall A

### **Baltic Copernicus Day**

The aim of the event is to ensure that Copernicus target groups in the Baltics are aware of the programme and its data applicability in their industries as well as are equipped with minimal skills (and thus, practical understanding of the data functionality) to actually drive data uptake in their respective organisations.

The seminar will provide current and practical information about the earth observation program Copernicus and the opportunities it provides for scientists, entrepreneurs and representatives of state institutions that use or plan to use earth observation data and promote the more active use of satellite data from the Baltic States in a wide range of industries.

Copernicus day will also bring a networking opportunity for representatives from the European Space Agency, the European Commission, other European institutions, industry representatives, companies and scientists working in the field of smart energy, logistics, bioeconomy and ICT.

The event is international and will take place in English.

Moderator:

Inese Suija-Markova

Agenda:

09:30 – 09:50 Development, future and role of the Copernicus programme in sectors outside of the space industry, and Horizon Europe support for Copernicus-based solutions

Speaker:

Evelīna Piskorza (Ewelina Piskorz)

09:50 – 10:10 The Copernicus Marine Service and its localization to Baltic users

Speaker:

Tina Siloviča (Tina Silovic)

10:10 – 10:30 The Copernicus Land Monitoring Service and its localization to Baltic users

Speaker:

Džoanna Balasis-Levinsena (Joanna Balasis-Levinsen)

11:00 – 11:20 Support mechanisms for start-ups, businesses, public authorities and scientists in the development of Copernicus applications and services

Speaker:

Gerda Kūma (Gerda Kuum)

11:20 – 11:40 Support instruments in ESA Earth Observation programs for Baltic EO community

Speakers:

Gordons Kempbels (Gordon Campbell); Dr. Claudia Vitolo, EO Digital Twin Earth Applications Scientist

11:40 – 12:00 Bringing Copernicus into Business

Speaker:

Annekatrīna Debiēna (Annekatrien Debien)

13:30 - 14:15 Baltic Copernicus use cases

Speakers:

Dainis Jakovels,  
Ilze Bargā,  
Kaupo Voormansiks (Kaupo Voormansik),  
Ģedimins Vaitkus (Gediminas Vaitkus)

14:15-14:30 Digital Earth Sweden - a national resource for satellite data

Speaker:

Selīma Ben Mustafa (Selima Ben Mustapha)

14:30 - 14:45 National Satellite Data Centre ESTHub

Speaker:

Maili Hirlaka (Maili Hirlak)

14:45 – 15:00 Idea about National Satellite Data Centre LATHub

Speaker:  
Dāvids Štēbelis

15:30 - 16:30 Panel discussion: Competition or Cooperation?  
Towards a joint effort of bringing Copernicus to the Baltics: Baltic  
EO Platform? BALTHub? A regional centre of excellence?

Speakers:  
Gordons Kempbels (Gordon Campbell),  
Dainis Jakovels,  
Maili Hirlaka (Maili Hirlak),  
Andrejs Grišanovs (Andrei Grishanov),  
Gedimins Vaitkus (Gediminas Vaitkus)

10:00 - 16:00  
Conference Hall C

### **Exhibition of Digital Products Made by Latvians or in Latvia**

Demonstrations of educational and scientific technologies (simulations, apps, educational games) developed or adapted by higher education and scientific institutions, research organizations, and companies.

10:30 - 20:00  
Atrium

### **Poster Session**

Poster presentations of research results in various research areas.

11:00 - 12:30  
Ziedonis Hall | Green  
Transition

### **How to Transform Our “Climate-Blind” to “Climate-Smart” Energy Systems?**

11:00 - 11:30 Keynote: Owercoming challenges in transitioning to renewable energy. Denmark’s lessons learned - for Latvia

Speaker:  
Henriks Lunds (Henrik Lund)

11:30 - 12:30 Panel discussion: How can Latvia create green energy?

The panel discussion will cover a wide range of issues, including innovations for improving the energy efficiency of buildings, the role of nuclear energy in Latvia in the future, prospects for the development of PV fusion and solar technologies, as well as the role of institutions in green transition processes.

Panelists:  
Andra Blumberga,  
Inese Zepa,  
Andris Šternbergs,  
Pauls Stradiņš,  
Elīna Pajuste

Moderator: Reinis Āboltiņš

13:30 - 15:00  
Ziedonis Hall | Digital  
Transformation

### **Industry 5.0 & Society 5.0**

An interdisciplinary view on the digitalization processes and artificial intelligence.

Main focus of this plenary will be on questions: What can we expect from Industry 5.0 in Europe and Latvia? What kind of changes it could lead to in our society?

Opening Remarks: Raimonds Lapiņš (Ministry of Economics)

Speaker:  
Šons O Reigens (Seán O Reagain)

Panelists:  
Liene Briede,  
Oskars Ozoliņš,  
Andris Anspoks,  
Andris Ambainis,  
Kaspars Ozols

15:30 - 17:00  
Ziedonis Hall |  
Science Impact

### **What Are Science Impacts? Conceptual and Measurement Issues for Latvia**

What does the term "Science Impact" mean? How is it measured and what does it really mean for scientists, society and the country as a whole?

Introduction:  
Jūlija Melkere (Julia Melkers)

Speakers:  
Daiena Hiksa (Diana Hicks),  
Glenda Krusa (Glenda Kruss)

Reflections: Agrita Kiopa

17:00 - 18:00  
Ziedonis Hall

### **Science Slam Competition**

Competition for PhD students and PhD candidates.

18:00 - 20:00  
Atrium

### **Dinner & Networking**

## **29. jūnijs**

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09:00 - 10:30  
Ziedonis Hall | Green  
Transition

### **Are There Enough Resources for a Prosperous Latvia?**

9:00 - 9:30 Keynote: Are there enough resources for a prosperous Latvia?

Advantages and disadvantages in transfer from non-renewable resource use to bioeconomy. Linking Norway's lessons learned - for Latvia.

Speakers:

Arne Bardalen

9:30 - 10:30 Panel discussion: Is bioeconomy a basis for a secure society?

The discussion will be about the impact of the Green Course on production, the impact of agriculture on the environment, the impact of climate change on production and the impact of production on climate change, as well as biodiversity in Latvia and how it affects production.

Panelists:

Aivars Bērziņš,  
Ieva Stūrīte,  
Renāts Trubiņš,  
Anna Stikāne,  
Irina Pilvere,  
Dagnis Dubrovskis

Moderator:

Inese Suija-Markova

10:00 - 12:00  
Conference Hall IV

### **Demonstrations of Space Technologies Made by Latvian Entities**

Nine most successful Latvian organisations developing space technologies or services will demonstrate their achievements in the space industry.

Moderator:

Pauls Irbins

Opening speech:

Rodrigo da Costa (Rodrigo da Costa)

Latvian organisations:

Allatherm Ltd - Space technologies for the Lunar Gateway

Speaker:

Luka Ivanovskis

Eventech Ltd - space technologies for the mission Hera

Speaker:

Ādams Adamovičs (Adam Adamovitch)

RD Alfa Microelectronics - Integrated Circuits for aerospace

Speaker:

Levs Lapkis (Lev Lapkis)

“VIRATEC” Ltd - TT&C service for the space industry

Speaker:

Mārcis Donerblics

Institute for Environmental Solutions - Earth Observation applications and services for natural resource management

Speaker:  
Dainis Jakovels

Baltic Satellite Serviss Ltd – space data services and applications for research, educational and commercial organisations

Speaker:  
Ilze Bargā

Fiber Optical Solution Ltd – Inertial Navigation Systems and Fiber Optic Gyroscopes for the space industry

Speaker:  
Jurijs Korkiško (Yury Korkishko)

AS SMW Group – high-performance magnesium alloys and high-strength aluminium materials for the space industry

Speaker:  
Eleonora Pole

RTU High-Power Rocketry Team – a team of RTU students the first in the Baltics designed and built a high-power rocket

Speaker:  
Mārtiņš Čaune

10:30 - 15:30  
Atrium

### **Poster Session**

Poster presentations of research results in various research areas.

11:00 - 12:30  
Conference Hall C |  
Green Transition

### **Green Transition of the Energy: Challenges and Opportunities**

Participate speakers selected by the Science Committee of the Congress from the list of poster authors:

Kārlis Baltputnis, Vineta Kleinberga, Uģis Cābulis, Ainārs Knoks, Jānis Kleperis and Pēteris Lesničenoks, Aiga Barisa

11:00 - 12:30  
Ziedonis Hall | Digital  
Transformation

### **Panel Discussion: Digitalization and a Human**

In this session's two separate panel discussions, participants will focus on the future vision of digitalization in Latvia, especially on what technologies and to what extent we will use in the future. The focus will also be on what kind of challenges could arise during and after the digitalization processes and how to promote technological development to boost benefits for society.

During the discussion, the participants will also assess the potential of digital technologies in promoting Latvian culture, while highlighting both needs and opportunities in this area.

Panelists:  
Jurģis Poriņš,  
Modris Greitāns,  
Signe Mežinska,  
Ivars Austers,  
Pēteris Zilgalvis,

Uldis Bojārs,  
Sanita Reinsone,  
Anda Laķe,  
Andrejs Vasiļjevs

Moderator: Artis Ozoliņš

11:00 - 12:30  
Conference Hall A |  
Science Impact

### **What Does Science Impact Mean for Young Scientists**

Short talks about science impact and a career in science from the perspective of young scientists.

Participants:  
Eduards Baķis,  
Kārlis Rācenis,  
Karīna Siliņa,  
Anna Kļučņika,  
Anete Vingre,  
Laura Bužinska

Moderator: Eva Johansone

13:30 - 15:00  
Conference Hall C |  
Green Transition

### **How to Profit Wisely in the Green Economy?**

Participate speakers selected by the Science Committee of the Congress from the list of poster authors:

Jānis Rižikovs, Edgars Kuka, Sandra Muižniece-Brasava, Zane Zelča, Laimdota Vilcēna, Austra Zuševica, Ilze Irbe, Biruta Bankina, Oskars Purmalis

13:30 - 15:00  
Ziedonis Hall |  
Science Impact

### **Science that Sells: How Science Funding and Academic Regeneration Is Managed in Estonia. Research Unicorns**

13:30 - 14:00 Interview with the president of the Estonian Academy of Sciences Tarmo Soomere to get an insight into how science funding and academic regeneration are organised in Estonia and how has Estonia managed its unicorns

Interviewer:  
Ilze Dimanta

14:00 - 15:00 Panel discussion: Science Commercialization and academic regeneration

Panelists:  
Tālis Juhna,  
Nikita Kazakevičs,  
Andris Vaivads,  
Anna Ramata-Stunda

Moderator: Jānis Palkavnieks



13:30 - 15:00  
Conference Hall A |  
Digital Transformation

### **Utilizing Digitalization: Enhancing Democracy in Latvia**

In this round table discussion, we will ask how to find a balance between the benefits and risks of digitalization, especially highlighting the Latvian context. The conversation will be multi-layered - we will talk about what digital democracy is, whether we need it and what it could mean for the people of Latvia, their relations with each other and self-awareness in the future. Also will ask how a 'digital Latvian' ('homo digitalis') will look like, without forgetting the facet of social inequality and our collective memory of past events. During the discussion, participants will also focus on participation tools as such - what they look like, what they do and which of them would be most useful for democracy in Latvia. At the same time, we will ask what the security risks associated with digitization are and what we can do to mitigate them.

Speakers:  
Klāvs Sedlenieks,  
Ieva Reine,  
Andris Ķesteris,  
Iveta Kažoka, Ivars Ijabs

Moderator:  
Indra Mangule

13:30 - 16:00  
Conference Hall IV

### **Workshop: Earth Observation for smart cities, land & sea for commercial added value and efficiency**

The workshop will focus on commercialisation and new links among the EO ecosystem of experts, decision makers as well as actual and potential users.

Agenda:

13:30-13:45 Arrival & registrations

13:45-13:50 Welcome

Speaker:  
Pauls Irbins

13:50-14:15 Where is the EO industry moving to and what creates business in EO?

Speaker: Aravind Ravichandran, TerraWatch Space

14:15-14:30 Commercial space data by Planet to enrich open-access satellite data-based solutions

Speaker: Staffan Klingvall, Planet Labs

14:30-14:45 Airbus satellite data and international cooperation

Speaker: Joe Cotti, Airbus Defence and Space

14:45-14:55 How to use and contribute to in situ data of the Latvian Environment, Geology and Meteorology Centre

Speaker: Viesturs Zandersons, Latvian Environment, Geology and Meteorology Centre

14:55-15:10 BREAK

15:10-17:00 Three parallel workshops and networking:

I. SMART CITIES

Facilitator: Viesturs Celmiņš, VEFRESH, Managing Director

II. LAND

Facilitator: Kristaps Banga, Accenture SPACE Ecosystem & Partnership Lead, Head of Innovation Accenture Baltics

III. SEA

Facilitator:  
Dāvids Štēbelis

15:30 - 16:30  
Ziedonis Hall

**Science Slam awards and Closing remarks**

Before the closing session of Congress, the Science Slam winners are awarded!

In the closing session, the closing remarks will be given by representatives of the Scientific Committee regarding what has been discussed on the stages during the Congress, adding their perspective on how the science in Latvia should develop in the future.