CENTRUM
NAUKI
KOPERNIK

In 2022, we hosted 1,342,010 visitors – our highest-ever attendance.

Annual Report 2022

Strategic Goals

We provide a top-quality experience to a safe number of visitors and to an online audience.

We maintain the availability of our Exhibitions, Planetarium and laboratories by flexibly shaping what we offer.

We are opening new exhibits, exhibitions and experiments in the Copernicus Science Centre building and its environs.

We provide local communities with exhibitions and activities.

We support the development of the competencies of the future.

We are developing a networked learning community

We encourage exploratory behaviours in visitors and people participating in other activities.

We mobilise people around important science-related topics.

We promote evidence-informed practice and attitudes.

We inspire and lead dialogue on global and local challenges at the intersection of science and society.

We secure funding for activities and development.

We secure specific-purpose grants for carrying out the most important projects.

We are boosting our income from fundraising and products and licensing sales.

We are securing space for R&D activity and offices.

The project of building and fitting out the new building of the Copernican Revolution Lab is nearly complete.

We are working to maintain continuous operations, agility and development potential.

We are working to maintain a committed team, tailored to the Copernicus Science Centre's needs and capability.

We are working to increase the efficiency of implementation of institutional goals.

Vision

People shape a world that is friendly to them and to nature, by developing and applying science.

Mission

We inspire people to experiment, understand the world, and take responsible action.

Values

We value science, freedom, responsibility, trust and co-operation.

On the cover: visitors to the After Hours Evenings for Adults can enjoy our standard attractions, as well as specially-themed ones, ensuring the uniqueness of each event.

How can you help those fighting to defend their freedom, when you work at a science centre?

On Thursday 24 February 2022, we woke up to war – a war just over our eastern border, with Russia launching a brutal attack on Ukraine. Explosions resounded just kilometres from the Polish border.

Many of us immediately got involved with aiding Ukrainian refugees escaping their war-torn country by welcoming them into our homes, volunteering at railway stations and humanitarian aid centres in our free time, organising collections of money or donations, and helping people flee the warzones, find shelter and work, and complete formalities. We also wanted to help as part of our jobs – but how do you join such a fight when you work at a science centre? Many of us wished we'd chosen a career in healthcare or charity.

We began with symbolic gestures: our building was the first in Warsaw to fly Ukrainian flags. When Russian cultural institutions spoke out against the invasion on Ukraine, Robert Firmhofer, director of the Copernicus Science Centre, wrote to the Polytechnic Museum in Moscow: "I call you to join the voices of the objection, stated in an open letter by prominent Russian scientists. Use every possibility you have to protest the aggression carried out by the Russian army. Demand a stop to all military operations carried out against Ukraine. You cannot stay silent any longer". The letter remained unanswered. Robert Fimhofer became an ambassador of supporting Ukraine in various international organisations that Copernicus is a member of, bringing together science centres and museums. The boards of the European Network of Science Centres and Museums (Ecsite) and the American Association of Science and Technology Centers (ASTC) wrote to the Association of Russian Science and Technology Museums requesting an appeal to the authorities of the Russian Federation to put an immediate stop to the war in Ukraine. Ecsite also offered support to Copernicus as the institution closest to Ukraine and able to offer the most help. Catherine Franche, Ecsite's director, wrote to Robert Firmhofer, "Please accept Ecsite's modest support, and let us know if there is anything we can do to help". Our efforts to help refugees were also supported by Chevy Humphrey and the Museum of Science and Industry in Chicago.

Children visiting American science centres wrote letters to children in Ukraine. The entire package of letters came into the hands of our CEO during the Ecsite conference and was immediately conferred to the President of the Minor Academy of Sciences of Ukraine, who handed the letters off to the participants of educational classes held by the Science Museum in Lviv. The American children did not have to wait long to receive answers.

In just a few days, Poland – previously a rather homogenous country – became multi-cultural. Most of the new arrivals were women with children. They didn't know the local language, culture or customs; they didn't know if or even when they'd be able to return home, how to plan or pay for their future. They had no support from the men in their families – who had to stay behind to fight. So how could we help them?

Many children from western Ukraine were already somewhat familiar with Copernicus and had dreamed of visiting. Olena Pavlyuk, director of Lviv Open Lab, told us that as they waited to cross the border for several days, she and other mothers kept up their children's spirits by telling them they are going to Copernicus. Later they kept their promises and brought the kids to see us. And what about us? We immediately provided free entry to our Exhibitions and Planetarium to the refugees. We wanted to give all children a safe space where they could forget about the war, at least for a while. Taking part in activities and experiments helps children unwind, and gives their exhausted mothers some time out. The visitors don't have to be able to speak or read Polish – our exhibits are intuitive, and the scientific phenomena they present are universal. In any case, with our guests in mind, we started adding signage in Ukrainian wherever possible. We translated technical information about the building, descriptions of exhibitions, soundtracks of films shown at the Planetarium and our website. We sought Ukrainian speakers who could help us engage with our new guests. Prof. Łukasz Turski put us in touch with Collegium Civitas, and we started working with volunteer Ukrainian students. We also entered into a partnership with the Minor Academy of Sciences of Ukraine – a governmental institution supporting gifted children. In 2020, the Academy launched the first science centre in Ukraine, and it was planning on opening a further two in Lviv and Mariupol. The organisation is currently active in western Ukraine where it hosts temporary exhibitions for refugees. We joined their project "Learn Science in Ukrainian". Scientists and linguists working with the Academy helped us translate educational materials.

A cooperation agreement with the Minor Academy of Sciences of Ukraine was signed during the Science Picnic.

We added Ukrainian translations to our Planetarium shows, but we felt it wasn't enough. We decided to look for films made in Ukraine so our young visitors could feel at home, surrounded by their favourite protagonists. Irina, director of the planetarium in Donetsk which produced the popular film "Khrumka and the Magic Rocket", wrote to us from her temporary shelter in an underground station: "Hope we find a way to send 'Khrumka' to you. As soon as such an opportunity arises, my husband and I will leave Donetsk and my favourite planetarium, to which I devoted my whole life". Irina managed to escape the frontline, and the Ukrainian show was added to our repertoire – and now it entertains Ukrainian and Polish kids.

Khrumka and friends take kids on an interplanetary journey in a magical rocket.

Copernicus has become something of a centre for spontaneous meetings of refugees. On occasion, they have been the biggest group of visitors at a given time; they exchange contact details and the latest information. Guides showing them around have told us that many children, traumatised by their recent experiences, found Copernicus to be the first place where they have been able to laugh, fully engage with something, overcome apathy and feel like kids again. In 2022, we welcomed 56,943 Ukrainian refugees, including 42,832 at Exhibitions and 14,111 in the Planetarium.

We are aware that not everyone is able to come to us, so we packed up our travelling exhibitions and hit the road. We headed to schools which have welcome Ukrainian children in Otwock, Szczebrzeszyn, Wyszków, Chełm and Grójec. We also visited children's homes and other temporary shelters, including the Education Development Centre in Sulejówek and Hotel Ossa. Every single time our exhibits confirmed their power in overcoming language barriers, and conducting experiments helped young refugees forget about the horrors of war, at least for a while. Our exhibitions have reached over three thousand children.

The "Together for a Better Future" programme

While observing our Ukrainian visitors at our Exhibitions, we cemented our belief that experimenting and making have as much potential to bring people together as communal cooking: they are an opportunity to strike up friendships and learn about other languages and cultures. This led us to launch the nationwide programme "Together for a Better Future" aiming to help Ukrainian kids integrate with their Polish peers and to improve their educational opportunities, sense of agency and social skills. We use our tried-and-tested formats based on experimentation, learning-through-making and conducting observations. The project is run on local and nationwide levels through its links with the Young Explorers' Clubs and the SOWA network.

The YEC clubs will host original events, while SOWA centres will host Family Workshops – one of our flagship formats. All educators involved with the project will have the opportunity to attend online workshops about working with culturally-diverse communities. Events hosted by the "School with Class" Foundation explore cultural differences in behaviour and communication and highlight the role of culture in building interpersonal and group relationships.

The "Together for a Better Future" Programme to help Ukrainian and Polish children integrate has been joined by the following members of our partner networks:

Young Explorer's Clubs:

- University of Białystok
- Municipal Teacher Education Centre in Bydgoszcz
- State School of Higher Education in Chełm
- WSB University in Gdańsk
- Centre for Craft Support, Dual and Vocational Training in Kalisz
- Łódź Children's University at the Łódź University of Technology
- Teacher Education Centre in Olsztyn

SOWA sites:

- Public Library in Piaseczno
- Science and Technology Park in Suwałki
- Municipal Public Library in Piotrków Trybunalski

Our partners on the project are the Deloitte Foundation and the "School with Class" Foundation. We have also received special support from Ecsite, stressing their belief that "the extracurricular educational activities designed by Copernicus and offered to Polish and Ukrainian groups will contribute to the integration process" and "make a good use of existing expertise, partnership and networks, something highly valued by the Ecsite community".

We wouldn't have been able to build a programme for the joint Polish and Ukrainian communities without support from our Ukrainian colleagues. We have also expanded our team by hiring explainers, educators and constructors from the war-torn country. Ania, who escaped from besieged Sumy with her three sons, is a translator, while Ola – a lecturer at the Donetsk National Technical University – is the first woman working at our workshops, where she writes software for digital equipment. Marta, Alla and Olga work on our exhibitions, and Inna works at the reception desk.

We long for the end to the war, and we are developing plans for helping to reconstruct the destroyed cultural institutions and exhibitions. So as turns out, it is indeed possible to help the cause, even quite far away from the frontlines.

Slava Ukraini!

In 2022, our activities supporting Ukrainian refugees received the Roy L. Shafer Leading Edge Award by the Association of Science and Technology Centers (ASTC). The prestigious distinction is awarded to institutions in recognition of extraordinary accomplishments in four categories: Business Practice, Resilience, Visitor Experience and Community Service. Copernicus's work for Ukrainian refugees earned recognition in the last category.

We provide a top-quality experience to a safe number of visitors and to an online audience.

Much like other cultural institutions in Poland and abroad, we expected to return to pre-pandemic numbers of visitors no earlier than in 2023 – and as such we'd hoped to welcome 850,000 visitors in 2022. However, we were in for a pleasant surprise: we received a record-breaking number of 1,342,010 guests in 2022! A big thank you to everyone who put their trust in us – we're delighted to learn that you missed us as much as we missed you!

After restrictions on visitor numbers (which had been capped at a total of 750 visitors – 450 plus 300 vaccinated individuals) were lifted on 28 February, we started to bring back our regular events such as After Hours for Adults. Laboratories hosted regular events once again, and the Planetarium resounded with concerts. Scientists returned to the exhibition space, discussing their work with visitors. Activities which had until then been limited to the online sphere took on a hybrid or in-person format. We were joined by the public to watch the Perseid meteor shower, at the Science Picnic and the Przemiany Festival. We launched the temporary exhibition WE Play With YOU and the second part of the exhibition "The Future is Today". The Educobus, Planetobus and science demonstrations also took to the road again

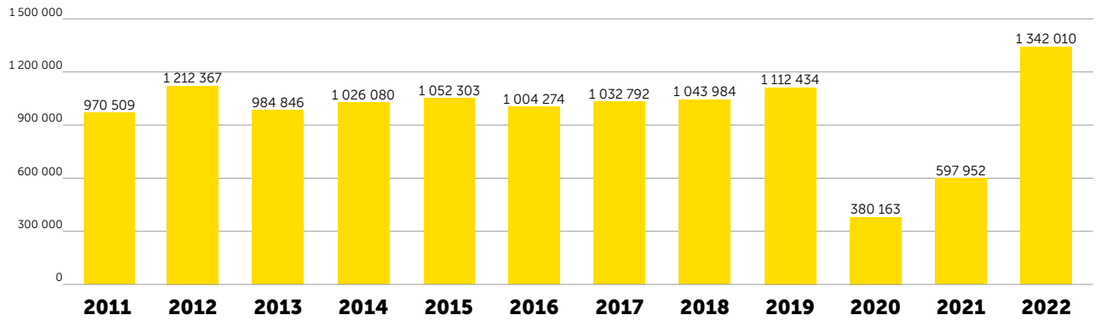
Our shows and workshops have not only returned to our Exhibition space – they also went back out into the world. We experimented at Expo 2020 in Dubai, and for our "Science Celebration" show we received the Grand Prix in the European Science Show Competition "Science Me!"

Still, not everything went our way. After 12 years of service, our air conditioning and ventilation systems started to break down, which resulted in reduced quality of experience, especially in the summer. We were even forced to limit visitor numbers on the hottest days. We are planning to start a major overhaul of both systems in 2023. The complex process will take several years.

Attendance: all-time record!

In 2022, we welcomed 1,342,010 visitors – the highest number in our history! Our Exhibitions were visited by 921,703 guests and the Planetarium by 287,426. Special events, such as the Przemiany Festival, Science Picnic, Museum Night, After Hours and events at the conference centre, were attended by 132 881 guests.

Attendance from 2011 to 2022

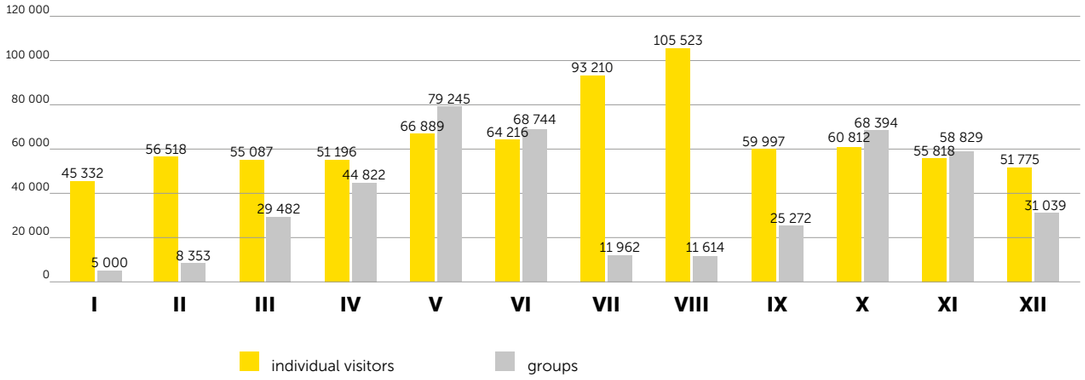


Record attendance in 2022

- 1,342,010 – highest number of visitors in our history
- Highest attendance in May since our foundation: 146,158
- Second-highest attendance at our Exhibitions in June: 104,246
- Highest attendance at the Planetarium in October: 28,636
- Second-highest attendance at our Exhibitions in October: 100,578
- Highest attendance at the Planetarium in November: 27,893
- Second-highest attendance at our Exhibitions in November: 86,776
- Highest attendance in December since our foundation: 82,814

Our forecasts for 2022 predicted 330,000 visitors attending in groups. In fact, we'd already reached this target in the third quarter. We sold a total of 442,756 group tickets in 2022. Although school groups usually visit us in the mornings, we have seen a rise in reservations for the afternoons. The numbers were in part driven by the "Discover Poland" campaign of the Ministry of Education and Science, which co-finances school trips to cultural institutions. We are delighted to have been the most frequently attended institution in Poland as part of the programme!

Visitor numbers for the Exhibitions and Planetarium taken together, broken down by individual vs. group visitors



We maintain the availability of our Exhibitions, Planetarium and laboratories by flexibly shaping what we offer

Our audience has changed over the last two years. Former young kids are now teenagers, and young people are starting their own families. We also have many visitors from Ukraine. The needs of the different groups of visitors are always changing, and we are doing our best to respond accordingly.

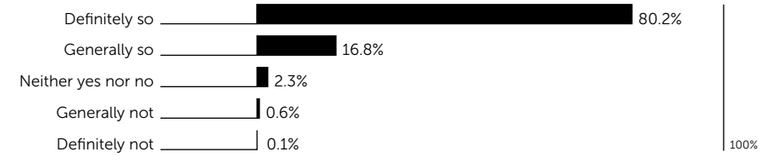
To adapt to our audiences' preferences, we conduct surveys on their overall satisfaction, favourite and least favourite exhibits, hobbies and how our visitors spend their spare time. We use the information to develop our programme. Bringing back events which had been suspended during the pandemic provided us with research opportunities and ways of reaching various groups. We have talked with children, young adults, teachers and participants in the Science Picnic, Przemiany Festival and After Hours. To make it easier for adult visitors, we have extended our opening hours on Fridays until 8pm. The evening tickets proved to be most popular in the summer months (May–August) and during holidays and long weekends.

"WE play with YOU" exhibition. As is evident, it was quite attractive not only for the youngest visitors.

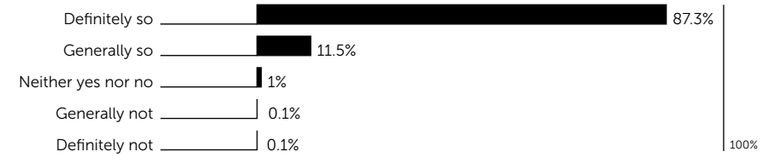
Our visitors

Our visitors remain consistently satisfied with their visit. In 2022, 95.8% of visitors of the Exhibitions and 98.7% of the Planetarium stated they were very satisfied or quite satisfied. Happy visitors recommend us to their friends and families!

In general, are you satisfied with your visit of the exhibitions at the Copernicus Science Centre?



In general, are you satisfied with your visit to the planetarium?

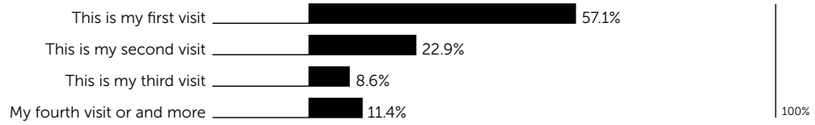


Would you recommend visiting the Copernicus Science Centre to your friends?

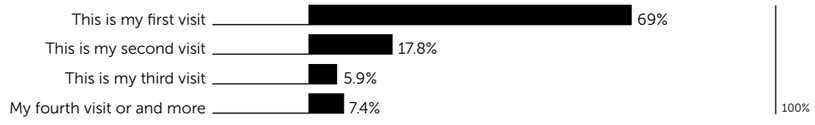
Recommendation score (NPS) for the Exhibitions: 68.6

Recommendation score (NPS) for the Planetarium: 84.3.

How many times in your life have you visited the Copernicus Science Center – Exhibitions?



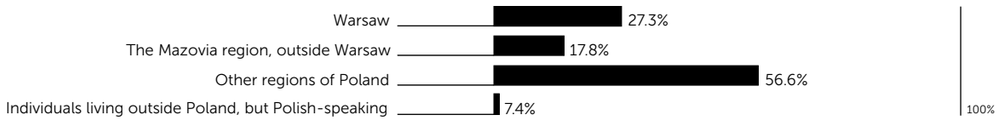
How many times in your life have you visited the Copernicus Science Center – Planetarium?



The demographic distribution of our visitors in 2022 was similar to previous years. Once again the numbers are dominated by women, individuals with higher education and those aged 45 and above.

In 2022, we aimed to increase the number of local visitors (from Warsaw and the Mazowsze Voivodeship) by targeting them with information and advertising campaigns. We predicted 352,376 visitors (with a planned attendance of 850,000 at the Exhibitions and Planetarium). In fact, the number was 511,466 with a total attendance of 1,209,129. Some 52,6% of the (individual) local guests were from Warsaw.

Place of residence



Teenagers and young adults

We are a favourite destination for families. 64% of our individual visitors state they come to Copernicus with their children. Teenagers and young people (15–25 years) are considerably less frequent as guests. Our goal was to welcome 222,320 visitors from this age group in 2022, but the final number achieved was significantly lower, at just 124,000.

Midway through the year, we conducted qualitative research which confirmed observations of other science centres around the globe: when young people plan their spare time, they don't consider institutions such as ours. Teenagers aged between 15 and 19 don't come to Copernicus because they've already visited "as kids", with their parents or school. They don't want to go to places full of younger children; they prefer spending their time with their peers at home or the cinema, at parties, or – if the weather is good – in popular outdoor spaces, such as the Vistula Boulevards. They are only really likely to want to visit again once they have children of their own.

However, we refuse to simply accept this lack of interest. We like a good challenge, and we are convinced that many of our activities could be of genuine interest to young people, so we continue trying to attract them. Some of our studies reveal that older primary school students mainly look for interests outside school, and they hope to gain skills which will become useful in later life (p. 46). It's likely that their slightly older peers feel similarly. We have asked them about their favourite hobbies and ways of spending time. What would they say when asked about learning and personal development? We should find out! We are also hoping that teenagers will discover us anew during school trips. Many high school teachers have declared their interest in the themes of the exhibition "The Future is Today" and its accompanying educational programme.

Teachers

Our research shows that it is easier for a teacher from a distant town to organise a trip to Copernicus is easier than from a neighbouring district. If travelling to Warsaw involves hiring a coach and overnight accommodation, the school works with a travel agency which organises the whole trip including booking tickets to Copernicus. But teachers from Warsaw and nearby towns are responsible for arranging everything themselves. To make it easier for them, we have launched a dedicated phone line. Teachers make an appointment to speak to us at a specific time on a given day; we then call them at the arranged time and help them book tickets and organise the trip. The service has been used over 500 times since March. Half of the bookings were made by teachers from Warsaw, who have do not use travel agencies.

In response to research conducted during the pandemic, we launched "Lessons Under the Stars" at the Planetarium. Each demonstration is attended by a single group of students, and the topic and difficulty level is tailored to their requirements. We retained the format even after all the pandemic restrictions were lifted, and 850 people attended such sessions in 2022.

One study revealed that teachers find it easier to visit Copernicus with their students when they'd been able to familiarise themselves with our exhibitions beforehand. In autumn, we held the first "Evening for Teachers" where we demonstrated our new exhibition "The Future is Today. Mission: Earth" (more on p. 50).

Visitors with special needs

It's extremely important to us that everyone can visit Copernicus in comfort and make the most of everything we have on offer. We have prepared a Plan of Action for Improving Accessibility to the Copernicus Science Centre, and we are eliminating barriers which have been making it difficult or impossible for visitors with special needs to fully enjoy their visit. We are working with foundations supporting people with disabilities including the Synapsis Foundation, the JiM Foundation and the Culture Without Barriers Foundation.

During the 10th Culture Without Barriers Festival, we released over 300 free tickets to the Exhibitions and the Planetarium. In 2022, we also continued the "Quiet Hours" programme for people on the autism spectrum and those at risk of sensory overload.

Since September 2022, we have been running the programme "Multisensory Copernicus" funded by a grant from the Polish State Fund for the Rehabilitation of People with Disabilities (PFRON), allowing us to learn more about the requirements of all our visitors and adapt our activities to their needs. We focus on people with sight and hearing problems, in particular children. We want to help them participate fully in cultural and scientific life, including providing access to the latest, verified knowledge.

We are working on a trail following exhibits fitted with audiodescriptions and we are preparing descriptions in simple language and Polish Sign Language (PJM). We are also planning to obtain portable induction loops to enable people using hearing aids to fully immerse themselves in our events and installing fixed and mobile tactile maps. We are also planning on hosting science shows and After Hours events in Polish Sign Language.

Accessibility aids at Copernicus:

- "Copernicus Without Barrier" tab
- Infrastructure improvements: wide entry gate, low counters at ticket offices
- Clear signage marking spaces inaccessible for people with disabilities
- Tactile maps
- Audiodescriptions of screenings at the Planetarium
- Noise-cancelling headphones
- "Migam" Polish Sign Languge interpreter system

We are a partner of the STOP BARRIERS campaign aiming to improve accessibility to people with disabilities.

The "Multisensory Copernicus" grant project is implemented by the Copernicus Science Centre on the basis of Agreement no. 114/KBB/261/2022 for entrusting a grant as part of the "Culture Without Barriers" project implemented by the State Fund for People with Disabilities with the Ministry of Culture and National Heritage, Institut für Bildung und Kultur e.V. and the Culture Without Barriers Foundation as part of Measure 4.3 of the Knowledge – Education – Development Operational Programme 2014–2020, co-financed by the European Social Fund.

We are opening new exhibits, exhibitions and experiments in the Copernicus Science Centre building and its environs.

"The Future is Today – Mission: Earth"

As the space mission Artemis was approaching the Moon, we launched "Mission: Earth" – the second instalment of the exhibition "The Future is Today", opened on 24 November 2022.

First, you hear a loud, regular ticking. It guides you to the exhibition and accompanies you throughout. The unsettling sound turns out to be emitted by huge counters showing the growth in Earth's population numbers, the increasing quantities of CO_2 in the atmosphere and vanishing biodiversity – some of the greatest challenges facing humankind today.

The Globe dominating the exhibition allows visitors to see our planet from a new perspective and look at data visualising climate change, the concentration of CO_2 in the atmosphere and human migrations. Photos by Mandy Barker show the vast amounts of plastic waste washed up on the beaches of the uninhabited Henderson Island. This includes old fishing nets, plastic wrapping, toys nibbled on by sea animals and strands of microplastic. You can view samples of the latter, collected from the shore of the Vistula River, under a microscope. The exhibition "Shaky balance" looks like a Jenga tower, although the blocks are of different sizes. They symbolise different species and the connections between them. If some organisms were to disappear, a calamity would surely follow.

Globe: beautiful visualisation of difficult challenges

Should we be afraid of the future? Fear doesn't bring constructive solutions, and those are what we need the most. The future of our planet needs us to change our lifestyles and follow recommendations of experts; it requires community action and care for biodiversity. The exhibition shows the extent to which our daily decisions affect plastic usage and CO_2 emissions on the global scale. It's also an opportunity to try your hand at a simulation of managing supplies of green energy in a city and testing the efficiency of solar panels, nuclear reactors and wind power stations. Find out the weight of a container of hydrogen and a hydrogen cell. Hydrogen obtained in an environmentally-friendly manner could revolutionise power generation. The genes of many plant species (in particular cultivated ones) are being preserved in seed banks. Our own "bank" is inspired by the largest one, in Svalbard, Spitsbergen. The exhibit "Greening" presents a vision of green cities of the future.

The "Future is Today" exhibition is accompanied by an educational programme of the same name (p. 50).

"The Future is Today" – the name of the exhibition keeps us on our toes! In order to ensure the future doesn't suddenly become the past, we must constantly improve and expand our exhibitions. This year, we added the exhibit 5G Popcorn to the "Digital Brain" section. Visitors discover that they can't actually make popcorn using the radiation from their phones...

These bars show the concentrations of CO_2 in the atmosphere. The last three bars are merely a forecast for now. It's up to us whether that forecast comes true.

Biodiversity is a complex and delicate puzzle built up over millions of years

Plastic waste washed up on the beaches of the uninhabited Henderson Island

The second module of the "The Future Is Today" exhibition was officially opened by: Copernicus CEO Robert Firmhofer, Deputy Minister for Digital Affairs Janusz Cieszyński, and exhibit curator Jacek Błoniarz-Luczak.

"The Future Is Today" exhibition and educational programme were created under the "Educational--informative campaigns aimed at popularising the benefits of the use of digital technologies" project, which is executed by the Chancellery of the Prime Minister of Poland together with the National Research Institute NASK and Copernicus Science Centre. The campaigns are aimed at promoting the use of technologies in everyday life by persons of different ages, overcoming the barriers in the field, and increasing the digital competences of our society. The project encompasses five areas: quality of life, public e-services, network security, programming, and a digital future.

The “WE play with YOU” musical exhibition

What is water murmuring about? What do saucepans sound like? Do sound waves tickle? These are just some of the questions overheard at our musical exhibition. You might have guessed they were asked by some of our youngest visitors. There’s only one possible answer: let’s find out! WE Play With YOU is an incredible journey into the world of sounds and vibrations. By tapping, knocking, slapping and blowing, children turn exhibits into instruments they can use to play their own tunes. And they need little encouragement! You can hear some of the sounds all the way back at the entrance to Copernicus.

The exhibition was launched in April 2022 and will remain open until the end of August 2023. We developed it with families with children and school trips in mind, but it’s proving to be equally popular with teenagers. And it’s hardly a surprise – one of the first questions asked by young people when meeting new friends is “What music do you like?” Music plays an important role in their lives – it helps young people find friends, express themselves and discover their own sensitivities.

The exhibits were designed by the musician, pedagogue and multi-instrumentalist Michael Bradke. His installations have been presented at museums, science centres, educational institutions, schools and theatres in many countries.

Concerts “Under the Stars”

Last summer, music and music-lovers returned to the Planetarium. It’s wonderful to see them under the starry skies again, immersing themselves in beautiful music. We’ve held classical, jazz and children’s concerts under the stars, with piano, violin, trumpet, accordion, saxophone and cello resounding under the Planetarium dome.

In the autumn, we also premiered the film “Origins of the Earth”. It shows the history of our planet and the origins of life which completely changed our planet’s significance in the Universe.

Artists:

- Kuba Sokołowski
- GG Violin
- Aleksandra Boborowska
- Anna Mikołajczyk-Niewiedział and Marcin Łukaszewski
- Violinofonica
- Bartosz Smorągiewicz Ensamble
- Cosmic Live Electronic: Andrzej Karałow and Jerzy Przeździecki
- Łukasz Ojdana
- Mikołajczyk Jedynecki Duo
- Monika Quinn
- Grupa w Składzie
- Przemek Strączek Trio
- Janek Traczyk

Aleksandra Bobrowska played compositions by Chopin, Mozart, Bach and Beethoven under a star-filled dome.

The concerts were co-financed by the Polish Ministry of Culture and National Heritage from the Cultural Promotion Fund – a national targeted fund as part of the “Music” programme, implemented by the National Music and Dance Institute.

“Straight from the Sky” lectures

Meetings with scientists and experts on the space sector were held in a hybrid format, returning to in-person events in October.

Subjects of lectures and experts:

- The galaxy through a telescope: 30 years of OGLE research (Prof. Andrzej Udalski)
- In search of black holes (Prof. Łukasz Wyrzykowski)
- Cosmic disasters: Flashes of gamma radiation (Prof. Agnieszka Janiuk)
- How did the Earth form? (Dr. Joanna Drążkowska)
- The Baltic and other seas from orbit (Prof. Mirosław Darecki)
- Polish cosmos yesterday, today and tomorrow (Prof. Grzegorz Wrochna)
- Hearing gravitation (Dr. Michał Bejger)
- Early evolution of the Earth (Dr. Anna Żylińska)
- Mining in space (Dr. Tomasz Gordon Wasilewski)

Lectures from the cycle “Straight from the Sky” presented in 2021 and 2022 as part of the “SPIN Science” project co-financed by the Scientific Social Responsibility Programme of the Ministry of Education and Science. The patrons of the project are Science in Poland, Rzecznicy Nauki and Profesorskie Gadanie.

Classes at laboratories

In September 2022, students returned to our labs to brand-new lesson plans. The new events were prepared following the programme foundations and are conducted using the scientific method. Students built cars powered by water (chemistry), studied the impact of global warming on oceans (biology), learned about different means of communication (physics) and used 3D printers (robotics). We held a total of 834 classes with the participation of 11,496 students.

Construction workshop for Young Girls

How should you build it so something doesn't collapse? What is concrete made of? The six-year-old girls who took part in the “Young Girl Builders” construction workshops know. We prepared the workshops in conjunction with the company ERBUD. After some inspiring talks and a visit to a construction site, the workshop outline was ready. The classes took place in the spring. Parents and daughters looked at what concrete is made of, learnt about mortar ingredients and tested out various tools. They built a brick wall and considered how to minimise the risk of a building disaster. Not only did the participants enjoy the workshop: it earned recognition in the “Golden Clips” competition, where we received two awards – a gold award in the “Real Estate, Construction, Home and Interior” category and a bronze award in the “Sustainability and CSR Communications” category. We also received a silver statuette in the S category (innovation with social relevance) in the “ESG Innovators” competition of the Polish ESG Association.

Before building a wall with real bricks, it’s good to practice with their foam counterparts.

We provide local communities with exhibitions and activities.

SOWA initiative

The SOWA initiative aims to create nationwide networks of local science centres by involving state-of-the-art educational and exhibition solutions. SOWA centres include around 20 interactive exhibits and a workshop space for construction challenges. They are being created all over the country, in towns with under 150,000 residents, at existing cultural, scientific and educational institutions (e.g. cultural centres, libraries and museums) whose statutory or programme activities include popularising science, technology, education, art and culture. They aim to bolster the scientific capital of young people and help them develop their sense of agency and the skills essential in the 21st century.

In 2022, we launched 17 SOWA centres throughout the country – that's almost two every month! Each has been equipped with an interactive exhibition and a workshop space. We have also fitted out another centre, which will open in 2023 due to delays to renovation works. All partners will be provided with equipment, support, training and full services. In 2022, the centres were visited by a total of 93,718 people.

Although all centres have been supplied with similar exhibits, each SOWA is unique due to the specific activities at its home institution. Our experience shows that allowing visitors to conduct their own experiments is a great addition to traditional activities of libraries, cultural centres, museums and educational institutions.

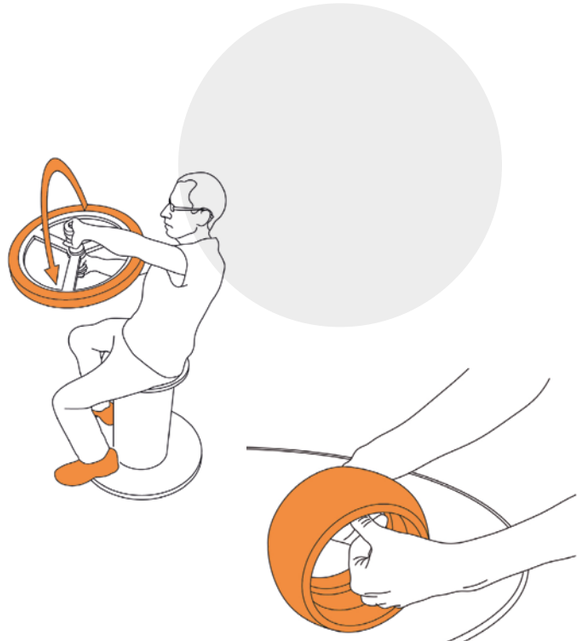
In the town of Pruszków, SOWA made itself at home at the local primary school whose students are old hands at experimenting: they have their own vegetable garden, meteorological station and insect and bird feeders.

In the town of Brzesko, SOWA is in the cultural heart of the region which has always resounds with music. Students learning to sing and play ukulele and piano are fascinated when they hear music through their own bones for the first time at our exhibition.

The Ecomuseum in Starachowice intertwines the past with the future and technology with nature. You can visit a 19th-century factory, a settlement from 2000 years ago, a Roman soldiers' camp, and even travel back in time to the era of dinosaurs. There's also an exhibition of cult STAR trucks.

The Tinkering Club from the Municipal Public Library – Knowledge Centre in Bolesławiec was delighted when the workshop space opened. Members of the club immediately started working on learnng-through-making projects. They even kept the boxes that the exhibits and kits came in – they decided everything is an inspiration and that they could come in useful. They also have an Experimentorium, a French Cultural Club, coding lessons and outdoor and forest workshops.

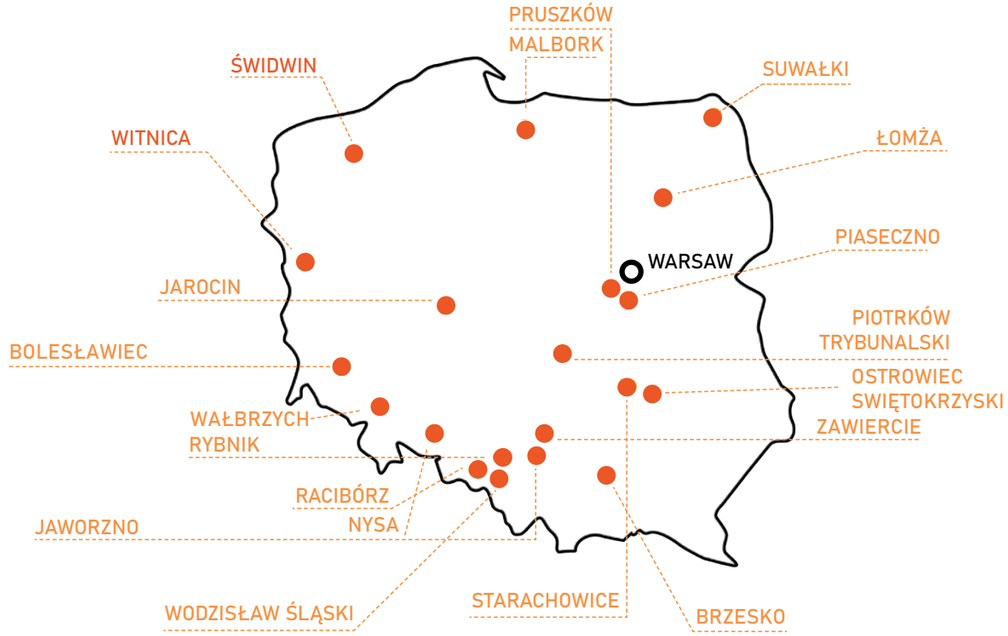
In Suwałki, the SOWA facility is at the Science and Technology Park Poland-East. It's popular with young engineers who build, program and test robots.



Some of the most beautiful SOWA locations are the newly renovated classicist Dietrichstein Palace in Wodzisław and the neo-Gothic Radoliński Palace in Jarocin. Here, history is truly at your fingertips! In Zawiercie, we have taken over the railway station, which means our experiments can be enjoyed by locals and tourists waiting for trains.

But the partnerships don't come to an end once each SOWA Centre is opened ... on the contrary – this is just the beginning! The institutions work together with Copernicus to host events promoting science and run or support educational activities at schools in their region. More on joint initiatives promoting science and activities of educational activities involved with the SOWA initiative on p. 38.

Locations of the SOWA sites in Poland



The SOWA initiative is financed by the Polish Ministry of Education and Science. The total programme budget will be 43,015,281.23 zlotys.

Science for You Programme

In 2023, we have been continuing the "Science for You" programme, financed by the Ministry of Education and Science. As part of the programme, we bring our mobile exhibitions (Educobus) and planetarium (Planetobus) to around 100,000 students and their families in towns and villages all over Poland. The aim of the programme is to promote engaging teaching methods and encourage students to study science subjects.

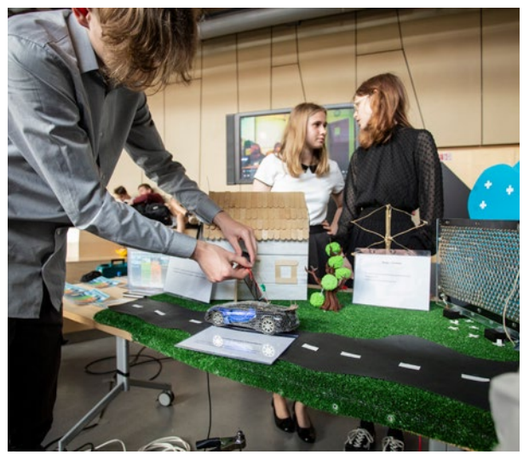
The Educobus and Planetobus hit the road once again in 2022 to reach places with limited access to science centres. We visited 146 towns. The Educobus took 91 trips, and the Planetobus – 30. We drove a total of 63,153 km. Due to the pandemic, we started the year with online classes: 101 e-Educobus sessions and 108 e-Planetobus sessions.

Although the mobile planetarium seems inconspicuous in a school gymnasium, it seats up to 30 people inside, and the dome is 5 meters in diameter.

We also familiarised parents and carers with family experimentation as a great way of spending time together. We have visited village common rooms, libraries and local cultural centres where we have been hosting workshops. We make suggestions on helping kids to conduct experiments and discussing cognitive challenges, positive support and building a sense of worth. We try to look at the world through children's eyes. After the classes, the participants receive home experimentation kits "Science for You at Home", featuring suggested experiments, materials and instructions to help kids discover the world by making things. Using the kits and materials found in every home kitchen, parents and children make rainbows in a glass, produce hydrogels and build towers out of pasta. We hosted 20 workshops in 10 towns with 130,000 or fewer residents with the participation of 400 people.

After the workshop, our kits went home. On a special Facebook group, families share new ideas for experiments.

We hold an annual competition for educational aids for teams of primary students and teachers. In 2022, finalists took part in workshops: they practiced teamwork and brainstorming, asked questions and presented concepts. They learned about different stages of prototyping and the necessary materials and tools. Winners received prizes during a gala finale. The winning teams (from primary schools in Pliszczyn, Kryry, Kraków, Grzymiszew and Gorzyce) presented their works to visitors of our exhibitions. We saw a flying ball, a strawberry cultivation proposal, a DNA model, a thunder village and a table presenting optics and geometry.



Presenting their work at our Exhibitions is a great experience for the contestants. They do their best to make sure everything goes perfectly.

Participants in the Summer Prototyping School also presented their exhibits to our visitors. The course involved 21 people: teachers (including winners of the Science for You competition), scientists, engineers, designers and researchers.

They spent five days planning, constructing and testing brand-new teaching aids. Their inventions included “Mathematical Pirouettes” helping students learn about spinning solids, “Chemical Tarantulas” exploring bonding theory and “Concrete-itis” revealing the relative absorbance of urban and green regions. The exhibits created through the Summer Prototyping School were hugely popular with Copernicus visitors and they were enthusiastic presented by their creators.

In 2023, the Educobus and Planetobus gained a new mobile mathematics exhibition developed between 2020 and 2022. Research and statistics show that mathematics has long been the Achilles heel of high school graduates. We wanted to help students grasp the sense and logic of mathematical operations and learn to like the subject from primary onwards. The unit comprises 22 exhibits presenting the beauty of mathematical principles found in nature. It is divided into three sections: applied maths, foundational maths and recreational maths. The exhibits were developed by an interdisciplinary team of experts including mathematicians, physicists, designers, engineers and constructors. The attractive “Mathematical Carpet” was developed by Dr. Michał Wojciechowski and Dr. Krystian Kazaniecki, while “Light Illusions” is a kinetic sculpture by John Edmark. We made two examples of every exhibit to avoid problems in case one breaks down.

The programme is financed by the Polish Ministry of Education and Science as part of the agreement No. 1/CNK-Nr 1/CNK-NAUKOBUS/2020 signed on 6 March 1/CNK-NAUKOBUS/2020. The “Science for You” programme includes the Educobus and Planetobus activities and online classes.

Before the exhibition goes on tour, it is good to put it to the test. We invited our entire team to the first tour.

We support the development of the competencies of the future.

“Future Life” – this was the name suggested by pupils in the final years of primary school whom we surveyed, asking them to imagine the subject they thought would be most valuable in the school curriculum (see page 46 for more on the survey). Although they had probably never heard of them, these young people had themselves discovered the need to develop “transformative competencies”. According to the OECD report “The Future of Education and Skills: Education 2030”, these include creating new values (based on innovation, adaptability, creativity, curiosity and open-mindedness), reconciling tensions and resolving dilemmas (requiring consideration for the interests and values of others), and the ability to take responsibility (based on intellectual and moral maturity). Young people, who ponder their future adulthood with fear and anxiety, would also like to learn practical things, to take lessons in their future life – paying taxes, finding a job and generally dealing with problems.

When we create teaching aids and engage in educational activities (on our own and through national and international networks), we are primarily concerned with fostering the development of transformative competencies – encouraging self-discovery and the creation of solutions, conversation and collaboration. We do not try to convince pupils that, for example, microplastics can be found in the sand along the banks of the Vistula River. Instead, we encourage them: check and see for yourself. View a sample under a microscope, collect soil from other sites and examine it, too. Think about where microplastics in the soil come from. We do not simply dismiss the idea: no, it is not possible to make popcorn with smartphones. Instead, visitors to the exhibition “The Future is Today” are invited to check this for themselves, and to consider how fake news works.

We are committed to making such “Future Life” classes commonplace, reaching the farthest corners of the country. We realise that we can’t get everywhere on our own, so we are developing a network of people and institutions who want to work together with us. To find out about the learning mechanisms and needs of pupils, we also conduct our own research. The results help us construct useful teaching aids, educational kits and lesson plans.

Robo-baby. What feelings does it evoke? You have to try it for yourself to find out.

We are developing a networked learning community

Members of a learning community share a common purpose and passion. Together, we can act more widely, reach out further, put proven practices to work, and avoid duplicating mistakes. Our networks bring together those who are involved in education and support the development of the competencies of the future. We work with educators, teachers, researchers, organisations and institutions.

The Young Explorers’ Club (YEC) network is our longest-running project. The members of the clubs, together with their mentors, experiment and learn about the world through experience. The clubs are small, and membership requires regular commitment from both mentors and children. We are committed to local cooperation between the clubs and the educational and scientific institutions operating in the area, so regional partners are important network “hubs”. Their involvement helps mentors to get to know each other, take on common challenges, and connect with scientists (more about YEC see p. 34).

Since 2014, we have been running the European Space Agency’s ESERO programme. It includes national and global competitions, challenges and workshops to inspire young people to choose engineering or science-related careers. ESERO also has its own ambassadors who live in different corners of the country and carry out local educational activities with space themes. Some of them are YEC mentors, while others have participated in ESERO programme competitions or run original popularisation programmes (more on ESERO see p. 38).

SOWA is the youngest network, still in the development stage. The Discovery, Imagination and Activity Zones (SOWA) are part of institutions operating in cities with up to 150,000 inhabitants – museums, libraries, community centres and schools. Some of these sites have previously been engaged in activities based on experimentation and construction, while others are just learning to do so. It is hoped that YECs will start to emerge around the SOWA Zones and that the clubs already operating in their vicinity will supplement their regular activities by, for example, hosting demonstrations or science picnics (for more on SOWA see pp. 22 and 38).

The Young Explorers’ Clubs, the SOWA Zone and the ESERO ambassadors not only cooperate with Copernicus, but also with each other. An event can be organised at a SOWA facility with local club members and ambassadors leading workshops or observations of the skies. Nothing prevents the Educobus or Planetobus from also coming to such a meeting. In 2023, the Clubs and Zones will be working with us on the “Together for a Better Future” programme, helping Polish and Ukrainian families to integrate by experimenting together.

In 2022, our network has expanded to include 17 SOWA Zones and 83 YECs. Seven new ESERO programme ambassadors also joined.

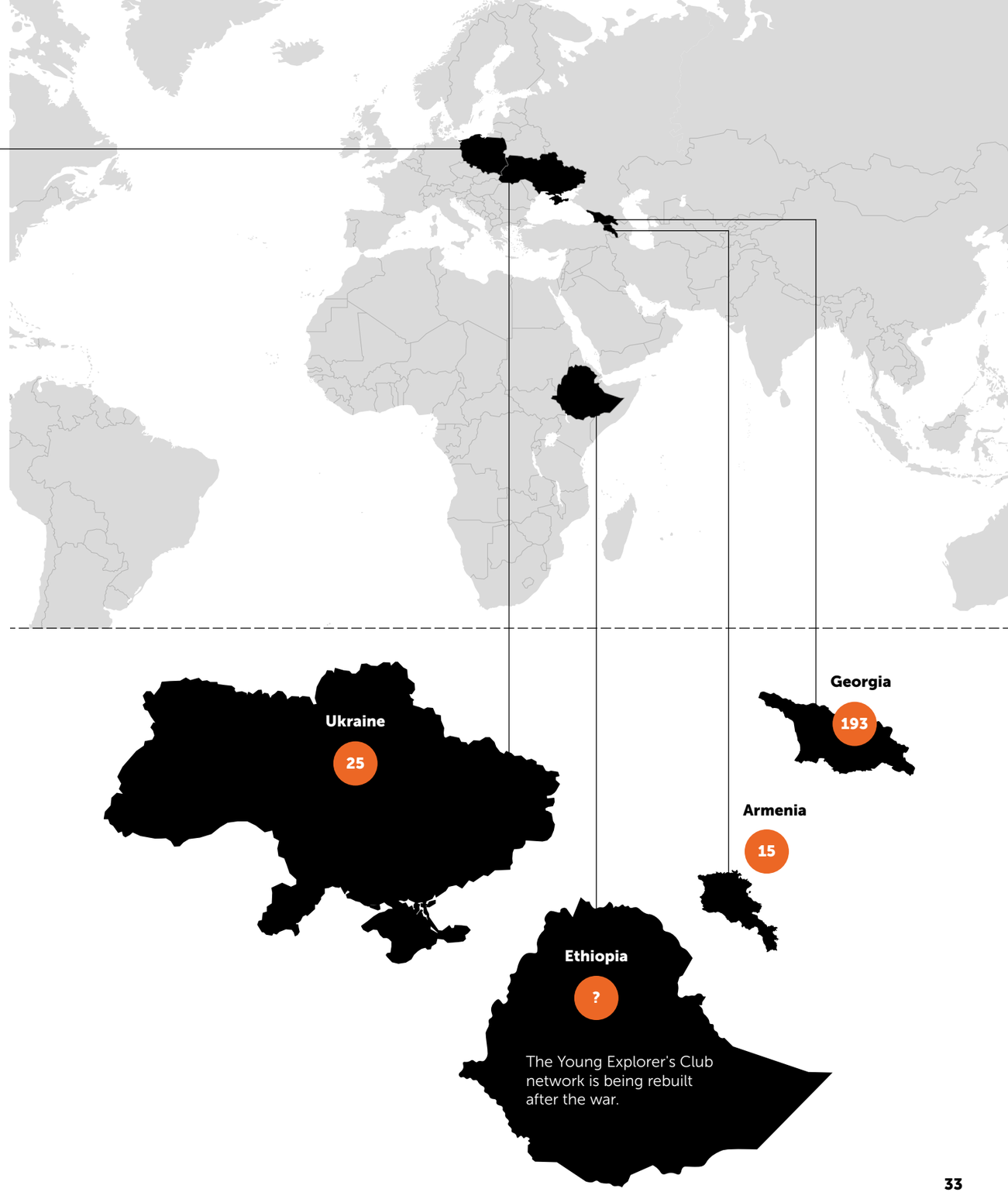
Our networks: in Poland and abroad

Young Explorer's Clubs

SOWA sites

"Science for You" visits

ESERO ambassadors



International Young Explorers' Club (YEC) programme

A YEC is an extracurricular educational activity for children and teenagers, involving collaborative, personal exploration of the world of science through experimentation. Club members experiment under the guidance of mentors, gaining knowledge, and improving communication, logical thinking skills, creativity and teamwork.

There are so many Young Explorer Clubs that it is difficult for us to stay in close contact with each one. The development of the network depends on the commitment of our regional partners, looking after the YECs in their area. In 2022, we have worked to ensure that they are actively involved in the development of the club community in their area, sharing original initiatives with each other and addressing common challenges. The "YEC Regions" grant competition, which enables people to raise funds for their own ventures, has resulted in events with a broad reach.

The activities of regional partners integrate local communities:

In Olsztyn, the club members conducted their own research at the laboratories of the University of Warmia and Mazury, and the mentors consulted with scientists. The project has strengthened the collaboration between the YEC and the university. The number of active clubs in the Warmia and Mazury Voivodeship also increased (from 35 to 43).

The University of Białystok has worked with clubs from the Podlaskie and Podkarpackie voivodeships. There were lesson plans at the interface between mathematics and natural sciences, lectures, and a Family Science Picnic.

The Youth Astronomical Observatory in Niepołomice taught YEC leaders from Małopolska and Silesia how to lead practical activities using astronomical themes.

In Kalisz, the focus was on popularising the YEC network in preschools. There were meetings for preschool directors and a joint visit to an active YEC preschool club in Chełm. Thirty-seven preschools participated in the programme and 14 declared their intention to set up a club.

We have a dual role in the YEC programme: we are the coordinator of the entire network and also the regional partner of the YECs in the Mazowsze region. Together with the University of Silesia and clubs from Mazowsze and Silesia, we studied and compared air pollution in both voivodeships. A variety of factors were taken into account – type of terrain, altitude and atmospheric conditions around the school, and chalk dust in the classroom. Club members took and recorded measurements using a dust sensor from our Modular Nature Lab kit "Air Quality: Dust Pollution Study". Eighteen clubs (nine each from the Mazowsze and Silesia voivodeships) participated in the project.

In parallel with the regional campaigns, we also carried out nationwide activities. As usual, certain YECs selected in a competition took part in the Science Picnic of Polish Radio and Copernicus Science Centre. Six clubs – picnic veterans as well as debutants – presented their experiments. One club came to us all the way from Georgia!

There were magnetic boats, a water orchestra, and a tornado in a water bottle. There was no shortage of shots fired and rainbows created in test tubes.

We make sure that the YEC community can participate in our educational programmes.In 2022, several mentors took part in the Summer Prototyping School (see more p. 28), and schools with YECs benefited from online lessons (e-Planetobus and e-Educobus) delivered as part of the "Science for You" project (see more p. 26). Clubs are also involved in ESERO activities (more p. 39), the Dream Designers programme, and the Lay Out – Let Out conference.

During the Science Picnic, the Young Explorer's Clubs made themselves at home in Pavilion 512.

The winners of the YEC Champions competition are a living example of how the clubs can be different.

The "Seekers of the Unusual" Club from Ełk builds bridges, cars of the future and complex structures. They go to the early classes of primary school and can always count on their parents, who also support their passion for construction at home.

Members of the "You Can Do More" YEC from Syców love outer space and showy experiments. They are no strangers to dry ice, water rockets, and even have their own stratospheric balloon.

The "VILO-LAB" club from Bydgoszcz is comprised of high school biologists. Although they initially approached the activities with a certain reserve and shyness, today they are using microscopes and designing experiments of their own.

The "Millionaires" from Stobierna are interested in lichens – so much so that they initiated a nationwide project studying them, with 30 schools already participating. The youngsters look for lichens and determine the levels of air pollution based on the presence of sulfur oxides. The club's database includes photos of lichens from 150 sites across Poland.

"Exploratory Maczek" from Katowice also address air pollution, but the club members looked at the problem from the engineering perspective. They created their own purifier for dealing with heavily smoky rooms. They plan further work, including in collaboration with a school from Czechia.

Since Russia's aggression against Ukraine, we have been thinking of our friends in the YEC network with great concern. Before the war, there were 45 clubs in Ukraine; we now know of around 25. Our regional partners (Ternopil Science Centre and Lviv Open Lab) have been crisis and humanitarian aid centres since the beginning of the war. The educational laboratories in Lviv produced Molotov cocktails and camouflage nets for the army. Over time, Lviv Open Lab has partially resumed its programme activities. Educators have started to run free workshops for children who have come from regions attacked by Russia. In September, our YEC team organised a training session in Lviv, which was attended by 18 club mentors and 11 potential trainers – staff from teacher training centres, CSR representatives, librarians and teachers. Our partners face the challenge of integrating new teachers into the network and harnessing the potential of future trainers. We also met with representatives from the city's education department, who talked about the current challenges such as lack of classrooms, textbooks, teachers, space, shelter and equipment. Our presence in Lviv has been widely recognised as a sign of solidarity and received with much gratitude. Our Ukrainian friends are supported by the entire YEC community, which includes hundreds of clubs. Together, we organise material as well as financial assistance.

In Lviv, it is not only the alarm sirens that remind us of the ongoing war. However, Lviv Open Lab is slowly returning to its program activities. We managed to jointly organize a training session for Young Explorer's Club mentors.

Young Explorers' Clubs also operate in Georgia, Armenia and Ethiopia. In 2022, we participated (after a two-year hiatus) in a science picnic in Tbilisi with more than 100 exhibitors (including 36 YECs!). In Armenia, we organised training for current and future club mentors. Our Armenian partner is the Byurakan Astrophysical Observatory, working with the Jinishian Memorial Foundation. For the past two years, they have been involved in disseminating the YEC programme, developing the network of clubs and keeping them active. On 30 May, a science picnic was held in Yerevan, organised by all the clubs – there are 15 in total. Armenian mentors regularly meet online and share their ideas. The YEC Champions competitions were also held in Georgia, Ukraine, and Armenia.

During the November YEC Forum, Romania also joined the network. We have signed a cooperation agreement with the Scientifica Association, which has been working for 10 years to create the first science centre in Romania.

Young Explorers' Club programme partners

Strategic partner
Polish-American Freedom Foundation

Countrywide partners
National Children's Fund – Children's University Foundation – Polish-German Youth Office – Good Education Foundation

Regional partners
ExploRes Association, Rzeszów – Youth Astronomical Observatory, Niepołomice – Teacher Training Centre in Olsztyn – Children's University of Łódź of the Łódź Technical University – State Higher Vocational School in Chełm – Vocational and Continuing Education Centre in Leszno – Wrocław University of Technology – University of Białystok – Silesian Intercollegiate Centre for Education and Interdisciplinary Research in Chorzów – Crafts Support Centre, Higher School of Banking in Gdańsk – Kazimierz Wielki University in Bydgoszcz

Programme development partner abroad
School with Class Foundation

Foreign partners
Ilia State University, Tbilisi, Georgia – Mekelle University, Mekelle, Ethiopia – Lviv Dovzhenko Centre, Ukraine – Ternopil Science Centre, Ukraine – Byurakan Astrophysical Observatory, Armenia – Jinishian Memorial Foundation, Armenia – Scientifica Association, Romania

SOWA network

The SOWA network currently includes 19 institutions (see page 22 for more) and another 13 will join in 2023. Since August we have been meeting once a month online to share experiences. This is extremely important, as there are facilities that have been operating for a year now, ones that have just opened, and ones that are still waiting to open. Contact is also aided by a special app, which allows people to report exhibit faults, talk about promotions and exchange information between sites. The second SOWA Forum took place in December, during which we were all able to meet at Copernicus.

We are committed to ensuring that educators working at SOWA develop their competencies. We invited them to classes on animation techniques and accessibility of exhibits for people with disabilities. We held a pedagogical workshop in Świdwin (at the special request of local educators).

We would like Family Workshops to be held in all SOWA establishments. This is one of our flagship educational formats for children aged 5–8 years and their carers. The first training, concerning classroom management, was held in Piaseczno. Three Zones (in Piaseczno, Suwałki and Piotrków Trybunalski) will also be running intercultural Family Workshops, as part of the "Together for a Better Future" programme.

We try to involve SOWA Zones in our projects, such as looking after local YECs. In 2022, all the institutions in the network were able to take part in training on setting up and running clubs. They were also invited to the YEC Forum. We carried out science demonstrations in Bolesławiec, and the Educobus visited Rybnik, Racibórz, Piotrków Trybunalski and Zawiercie. In Wałbrzych, our mobile exhibition appeared even before the opening of the facility. It allowed us to test the space before the final exhibits were set up. The Planetobus visited Staszów, Piaseczno and Starachowice. The ESERO team took part in the science picnic at Piotrków Trybunalski.

At the SOWA picnic in Bolesławiec, we held scientific demonstrations.

In 2023, the Zones will host Family Workshops for Polish-Ukrainian groups, as part of the "Together for a Better Future" programme (more on p. 6).

The SOWA initiative is funded by the Polish Minister of Education and Science. The total budget of the programme will be PLN 43,015,281.23.

ESERO Programme

ESERO is an educational programme run by the European Space Agency (ESA) aimed at teachers and students at all educational levels. We support science teaching and we demonstrate this in the context of knowledge of outer space. We inspire young people to choose engineering and technology-related professions in the future.

In 2022, we further developed the community of Space Ambassadors, which we started building five years ago. We wanted ESERO's events to be attended not only by regular visitors but also by newcomers – representatives of different backgrounds and different places. The events are easier to reach for people who live close by. Ambassadors are committed educators who support ESERO-Poland projects and events in line with their particular knowledge and competencies. We show them how to weave space themes into their classes, and they help us adapt our ideas to the requirements of formal education. In 2022, seven new people joined the network.

Space ambassadors are active out "in the field." Once a year we meet at Copernicus and discuss plans for the future.

In their communities, the ambassadors organised activities on Micro:bit programming (for teachers) and a rocket lesson (for pupils). The Educobus came to the space picnic at Marcinkowicze Primary School. Two ambassadors from Silesia invited us to Gliwice, where we talked about the ESERO competitions and were able to see the local team's progress on CanSat. At the astronomical observatory in Tymce we conducted workshops for teachers from nearby towns. Space enthusiasts together with local authorities have created a site there that houses one of the largest and most modern optical telescopes in Poland, as well as and a whole fleet of smaller ones.

ESERO cyclical competitions for children and teenagers

- CanSat – independently constructing simulated space probes and conducting scientific research using them.
- Moon Camp – moon base design.
- Climate Detectives – seeking solutions to a local climate problem.
- Astro Pi – creating a computer program to carry out research in microgravity.

Participation in ESERO competitions is one way of introducing space themes into schools. Together with teachers, ambassadors and educators, we are looking for new opportunities to reach them. The "Space Over Coffee" initiative involves regular meetings of educators, experts and teachers. They take place online, which is an advantage – anyone interested can join the discussions, regardless of where they live. We talk about ESERO's competitions and challenges, share our ideas, and in return gain knowledge about what we can change and what activities the pupils are most interested in. We have found that participants in such meetings are later more willing to participate in our projects with pupils.

In 2022, we extended the programme of the Summer School of Space Education. It was attended by 48 people teaching teenagers and children at risk of social exclusion. During the intensive online course, educators learnt how to run educational projects in partnership. We also prepared them to take part in the ESERO challenges: CanSat, Moon Camp, and Climate Detectives. The competitions were entered by five teams led by course participants.

Teachers, educators, ambassadors. We are united by our common goal: we want to bring space into schools.

With teachers working in secondary schools in mind, we have created an online course on "Satellite Imagery in Schools". We wanted to show them that satellite resources are by no means strictly reserved for scientists and, using an easy-to-use viewer, you can actually make your own observations with pupils – of phenomena such as rivers and oceans, green spaces and weather. The course was attended by 169 people. Next year we are planning another one with a different theme.

At ESERO, we mainly work with teachers, educators and ambassadors. However, this does not mean that we do not meet with pupils. As part of the "Galaxy of Women" initiative we organise meetings with scientists from the space industry. The participants are girls who are facing their choice of career path. We show them career opportunities in the space sector and try to challenge the stereotype that it is reserved for men. In December, we ran an online workshop "Careers in the Space Sector" for older primary and secondary school students. Together we considered what space challenges we could solve in the future. We talked about current and planned missions and the professions of the experts who work on them.

The launch of CanSats is an amazing spectacle, accompanied by great excitement of the young designers

Dream Designers

Participation in the Dream Designers programme involves creating one's own invention, in line with a current, always different theme. The most interesting student ideas receive funding to implement and equip their own mobile toolbox. In 2022, we noticed that the existing mini-grant competition formula had temporarily run out of steam. The number of interested participants had taken a downturn and ideas had started to become repetitive, therefore we decided to support past winners. As it turned out, many Polish schools have microcontrollers or 3D printers, but few actually knew how to use them in the classroom. Together with experts, we started working on educational materials and scenarios. We believe they will be of interest to teachers and educators not directly involved with Dream Designers.

We run the Dream Designers initiative in collaboration with Boeing.

“Lay Out – Let Out” Conference

When hundreds of thousands of Ukrainian children joined Polish schools in a matter of weeks, teachers found themselves in a completely new and difficult situation. Suddenly they were teaching in multicultural classrooms. Where to begin? How should they work to create optimal conditions for all their pupils? They had neither ready answers, nor much time to prepare. To support teachers, we dedicated the 2022 “Lay Out – Let Out” Conference to the educational challenges of diversity in its broadest sense.

What is it like to be “different”? Dr. Urszula Markowska-Manista, who gave the opening lecture at the conference, lets her students (future teachers) experience this sensation firsthand. Unannounced, she begins to teach her first classes with Polish pupils in a foreign language they do not know – either in German or in Sango (a language spoken in central Africa). Listeners are at first surprised, and then grow increasingly upset. When the experiment ends, however, they begin to grasp its significance. This is, after all, precisely how foreign pupils feel when they come to their first lesson at a Polish school.

During the conference, we talked about fostering attitudes of greater intercultural openness, equal opportunities, other cultures not related to nationality (e.g. Deaf culture), and the challenges of living in exile. We looked at the school as a mirror reflecting society as a whole. We were looking for individual and joint diversity management strategies.

At the “Lay Out – Let Out” Conference we built cross-cultural bridges, at both workshops and talks.

We also challenge stereotypes. “Special” educational needs is a term that often seen as carrying negative connotations. Parents try at all costs to make their children like the majority, and the pupils themselves also want to be like their peers. Meanwhile, special needs do not equate to disadvantages. Outstandingly gifted, bilingual students can also have them. In educational practice, it is better not to look for the only right benchmark and avoid comparing. This is a particular challenge for teachers – rather than adapting to the needs of the majority, they should strive to meet the needs of all students. Polish children, Ukrainian children, exceptionally gifted children and children with learning difficulties need attention, warmth, support and stimulation to perform. In such an environment, they can develop properly, enjoy learning, get rid of their fear of speaking, of people, of thinking, and strengthen their sense of worth and dignity.

The conference helped teachers and educators to gain knowledge and relevant competencies to counter exclusion and bring out the potential hidden in diversity that enriches the learning environment. The meeting was attended by 205 people (including 64 first-time attendees).

Projects under the European Union’s Erasmus+ programme

Participation in international educational projects is an opportunity for us to share our experience and look at our activities from a different perspective. It is also a chance to find further inspiration and to work with new partners.

In September 2022, the three-year “Tinkering for Adults” project came to an end, which aimed to develop adults’ confidence, and encourage continuous development and interest in science and technology. In collaboration with the “In Mother’s Heart” Foundation, we created two original scenarios: building cardboard furniture and creating home gardens. We also held workshops for more than 180 wards of the Foundation. The project was carried out in collaboration with the Nemo Science Museum in the Netherlands (as leader), MUST from Italy, University of Cambridge in the UK, Science Centre Netzwerk in Austria, and TRACES in France.

As part of the “Hands on Remote” programme, we helped vocational and technical schools to hold practical classes. We created lesson plans and tested them with teachers and students. We also designed experiments. In order to conduct them, pupils had to build them, sometimes constructing measuring tools themselves and carrying out tests. We have also prepared a guide on different tools and methods related to remote learning and the use of new technologies at school.

The project is being carried out in collaboration with the Deutsches Museum in Germany and the Universidade de Lisboa in Portugal.

We encourage exploratory behaviours in visitors and people participating in other activities.

We want our educational programmes and projects to be effective and cutting-edge, and to support independent experimentation. That is why we are researching and improving them as part of the activities of the Copernican Revolution Workshop. We also seek to gain a better understanding of learners' motivations and needs. In 2022, we created an educational kit for pre-schoolers, looked at what teenagers think about knowledge acquisition and how their younger colleagues work in teams. We have also planned research within the Living Lab, which we will open as early as the first quarter of 2023.

Four Seasons – preschool set

In 2022, we completed the prototype of our first experimentation kit for pre-schoolers (children aged 5–6 years). We wanted to encourage the children to observe nature around them during the changing seasons. Each experiment aims to provide an opportunity for independent action, such as requiring kids to collect leaves or find flowers, for example. The prototype kit consists of 10 experiment scenarios, the equipment needed to perform them, a "memory" game in a hard copy version and in an app, as well as methodological materials for teachers.

The kit consists of 10 experiment scenarios, the equipment needed to perform them, a "memory" game in a hard copy version and in an app, as well as methodological materials for teachers.

We conducted test activities with the "Four Seasons" set in two preschools, separately with 5-year-olds and 6-year-olds. We wanted to see if the experiments were suited to the children's abilities and if they worked well in a pre-school setting. We were also curious to see how the pre-schoolers experimented, what they would remember and for how long. A week after the activity, the children drew what stuck in their minds and talked about what the tasks had consisted of. All the pre-schoolers remembered the colours and shapes in quite some detail. The six-year-olds, who experiment regularly, drew more elements. They were also able to tell us what they were doing and in what order.

The classes varied in length and delivery. With older children, it was already possible to practise the skills involved in experimentation – observation, comparison, deduction, prediction, describing physical phenomena, and formulating hypotheses. The 5-year-olds' attention was often distracted during both experimenting and drawing.

Observing the work in both age groups helped us to prepare a set of guidelines for class teachers. These describe the arrangement of the space and supporting the children as they experiment and make inferences. We also created a fable telling the story of what an experiment is.

The originator and distributor of the "Four Seasons" set is the educational aid company Moje Bambino, a member of the consortium of the Copernican Revolution Workshop.

The "Make it Open" project

The aim of the international project Make It Open is to build a learning environment in which students identify local problems and look for ways to solve them. They involve teachers, parents, businesses, and institutions. In this way, the school becomes a local centre for cooperation, known as open schooling.

In 2022, we developed four school project scenarios together with four schools. "Sounds Around Us" deals with measuring noise levels in various parts of the school and how to attenuate them, and includes instructions for constructing an acoustic chamber for the school radio station. "From Seed to Compost" is an activity related to food, food waste and building a school composter. As part of "Biodiversity", students create a flower garden on the school grounds and conduct biodiversity surveys. "On Two Wheels" combines the theme of air pollution by exhaust fumes with a social campaign promoting the use of public transport and bicycles. Each scenario includes 7–10 lessons lasting one hour. The trial classes had an international flavour: we carried out projects prepared in the Netherlands and the UK, and our suggestions were tested in these countries. It turned out that not all scenarios were sufficiently well described to be carried out correctly. We had to change their format and add new elements such as tips for teachers, photos, videos and additional materials (e.g. survey templates). A total of 16 scenarios were created as part of the "Make It Open" project. These are available in 10 languages on the Navigator platform (www.openschoolingnavigator.eu).

Our 2021 survey showed that the terms "open schooling" and "citizen science" are unclear to most Polish teachers. As a result, we are working on an online course. We prepared material on teaching through inquiry, and educators from collaborating schools created recordings documenting their experiments. The course will be available in mid-January.

Our teacher surveys identified the major challenges in introducing the "open schooling" approach into schools. Organising lessons with experts proved to be the most difficult – establishing contact, setting expectations, dividing roles during activities and organising group work. In the end, however, the teachers found the experience most valuable. We have developed recommendations for partners to help support teachers at this stage.

Make it Open is created by the Copernicus Science Centre (Poland), Bloomfield Science Museum Jerusalem (Israel), Stichting Waag Society (Netherlands), Fixperts (UK), EUN Partnership AISBL (Belgium), Teachers College Columbia University (USA) and Ecsite.

Competence of pupils and motivation of teachers participating in the Science for You competition

The "Science for You" competition (more on p. 26) is always a great research opportunity for us. In 2021 we looked at the creative activities of teachers, and in 2022 we decided to focus on the motivation of teachers and the development of pupils' competencies when working together.

The children admitted that participating in the competition was a source of considerable satisfaction and fun for them. Interestingly, a higher level of satisfaction was declared by members of the teams that did not ultimately make the finals. Later winners focused more on the process of creating and improving the teaching aid itself, rather than on their relationships with their teammates.

The overall dexterity levels of students improved slightly with successive stages of work. Growth was more evident in teams whose members liked and trusted each other.

The reasons for the teachers' involvement in the Science for You competition were primarily internal and autotelic. These included the pleasure of doing something, the desire to create something that would be useful to others, or taking the opportunity to learn something new. Teachers who managed their own and the whole group's activities more effectively also created more original, refined and useful teaching aids.

How teenagers perceive school knowledge and scientific knowledge

"It's more useful to know how to write a CV than what happened in 1944". "What are acids or other hydrochlorides useful for?" "We don't like to sing; we don't like being judged". "In maths we find many things useful, but not the different types of prisms". "Why do I need to know that Japan has three rivers?" These are the statements of teenagers – the most demanding audience, who are themselves reluctant to share their thoughts. We were curious to know how they assess the usefulness of school and extracurricular knowledge in their lives. When do they decide what they do not want to learn and what criteria do they use? As part of the Science for You programme, we conducted a qualitative study among older primary students from schools in Warsaw and the surrounding area.

"Usefulness" for most teenagers is synonymous with practical skills: "The most useful stage is from grade 2 to grade 4, because that's when we learned to write, speak Polish, how to count – basic things. Now we only get further and further into details." Unhelpful knowledge is knowledge that has no application, is quite difficult to learn and almost immediately disappears from memory. General (generic) knowledge helps lay the foundations for further, more individualised, targeted development. It is noteworthy that the majority of respondents were strongly aware that in 10 or 20 years' time, the reality they live in may be completely different from today.

Where can we look for useful knowledge? According to our respondents, out of school. They recognise that it is knowledge gained "incidentally"; practical knowledge derived from experience rather than "dry theory".

A foreign language (English) was identified as the most useful school subject, helping to function in everyday life and facilitates communication with others around the world. Maths was second, followed by Polish in third place. The science subjects were rated low due to having "too much detail". Young people found them too theoretical, inexperiential, difficult and lacking in any practical application.

Mathematics is useful, physics less so, engineering – not at all. This is how young people evaluate school subjects.

In an ideal timetable, students would reduce the number of "unhelpful" school subjects and add those that reinforce their interests, can help them further their passions and enhance their sense of physical and mental wellbeing. They mentioned self-defence, Ukrainian language, gardening, cooking, architecture, creativity, gaming, psychology and walking.

Teenagers acknowledge that the usefulness of the knowledge they gain at school depends on the teacher, who should "understand their world and their culture" and treat them with empathy. It is also very important that they are well prepared for final primary school exams.

The findings will inspire us to take up the challenge and create lesson plans that teenagers will find useful and valuable. We also plan further research related to different understandings of the usefulness of knowledge.

Living Lab

We realise that the Copernicus Science Centre makes for an excellent research venue – not only for us, but also for other scientists. We want to share it, while giving our visitors the opportunity to participate in the creation of brand new knowledge in the social sciences.

In the first quarter of 2023, we will create the Living Lab Zone at the Exhibitions. It will feature research stations that are similar in appearance and functionality to our exhibits. Each station has been prepared by a different scientist or research team. Visitors will solve puzzles and perform tasks, and the results collected will be used by scientists in real research. There is no need to fear that something will not go well – every sample contributes valuable data.

By rearranging three points, how do you change a triangle with its vertex pointing upwards into one with its vertex pointing downwards? Take up this challenge to help Dr. Wendy Ross explore the nature of algorithmic thinking. She is curious about how many people will start from the same point, how long it will take them to solve the puzzle, and whether it will prove easy or difficult for them.

The task posited by Prof. Dor Abrahamson involves finding a way through a maze. But with a certain twist – the object being guided is controlled by two people at the same time. They have to work together to achieve the goal.

Dr. Brenda Jensen, in turn, examines whether we are open to the unknown. She will analyse visitors' choices using "join the dots" images. On one, the outlined shape is immediately visible, while the other is diffuse. Which is more likely to be chosen?

Prof. Maciej Karwowski offers visitors a creativity test. On the screen you will see dashes and circles – different shapes to which you can add something to create a picture. After completing the task, everyone can find out if their drawing was similar to the others.

Which online posts contains reliable data and which don't? There will be an opportunity to test your skills in exposing fake news, and Prof. Dariusz Jemielniak will examine what elements we pay attention to in deciding what is true.

Scientists who are designing stations to be featured in the Living Lab

- Prof. Dariusz Jemielniak and Anna Kovbasiuk (Koźmiński University)
- Prof. Maciej Karwowski (University of Wrocław)
- Dr. Brenda Jensen and Dr. Tessa van Schijndel (University of Amsterdam)
- Dr. Wendy Ross and Prof. Thomas Ormerod (London Metropolitan University)
- Prof. Dor Abrahamson (University of California, Berkeley)

Publications by the Copernicus Revolution Lab

1. Ilona Iłowiecka-Tańska, Małgorzata Łukianow, Anna Karwińska (2022). Science capital as a modernisation resource: How to develop the potential of small town students? *Przegląd Socjologiczny*.
2. Iłowiecka-Tańska, Gop A., Potęga vel Żabik K., *Teachers as Designers: Learning by Exhibit Prototyping, Amplifying Informal Science Learning*, Routledge 2023 (in press)
3. Katarzyna Potęga vel Żabik & Ilona Iłowiecka-Tańska (2021). The hidden meaning of physical interaction with exhibits: the relevance of the Instrumented Activity Situation model, *International Conference of Learning Sciences, Hiroshima 2022, conference proceedings*
4. Iłowiecka-Tańska I., Centrum nauki – nowy model museum [The science centre – A new model of the Museum], Prace Kulturoznawcze, in press.
5. Gop A., Praktyki epistemiczne dzieci w wieku szkolnym podczas eksperymentowania w domu [in press; Planned submission date: January 2023; *Studia Edukacyjne* or *Przegląd Pedagogiczny*]
6. Gop A., Skrzypowska J., Iłowiecka-Tańska I., Rozumienie zagadnień naukowych z wykorzystaniem eksperymentu u dzieci 6 letnich [working title; planned submission date, March 2023; Polish pedagogical journal]
7. Karwowski M., Lebuda I., Zielińska, Gop A. (et al.). [Article on research conducted at NdC in 2021; in press; English journal – psychology/pedagogics; planned submission date: Feb.-March 2023].

We mobilise people around important science-related topics.

The clock is ticking. The Earth has over eight billion inhabitants, and if we don't take collective action to save our planet, the most pessimistic forecasts being made by experts may come true. Atmospheric CO_2 concentrations are rising at the fastest pace in history. The growing demand for energy and the need to feed the expanding population are both seriously degrading the environment. We must be bold and determined to change the way we live, to listen to scientists and experts, and to take collective action. That's why the topic of the climate crisis has been predominant at our key events. We have also been tackling the challenges posed by the development of digital technologies and holdling a cycle of debates on energy poverty.

We promote evidence-informed practice and attitudes.

Educational programme "The Future is Today"

The aim of the educational programme "The Future is Today" is to support school students in bettering themselves, helping them build IT, communication, teamworking and critical thinking skills. The activities are aimed at students in the last two years of primary education, high school students and teachers. We want to help them discover and understand the challenges of the contemporary world.

Following the launch of the exhibition "Mission: Earth", we invited educators to an "Evening for Teachers". Visitors had an opportunity to visit the exhibition accompanied by explainers, watch the show "Climate: A Hot Topic" at the Planetarium, and listen to a talk by Dr. Magdalena Budziszewska, expert in climate depression – a growing problem among young people. Teachers praised the new exhibits for their content, presentation and design. In their view, in spite of the difficult subject, the exhibition inspires action rather than stirring unnecessary fear. They were especially interested in the Globe – a huge spherical screen displaying maps of the Earth showing population density, changing weather, pollution and collapsing biodiversity. The educators felt this exhibit would serve as an excellent teaching aid. We are planning a further two meetings in the coming year, in March and October.

In 2022, we held 18 events as part of the programme "The Future is Today": seven for teachers and 11 seminars, workshops and online and in-person meetings for students. We held them as part of larger events (Lay Out – Let Out conference, Space at Schools) and independently. Together with the National Research Institute, we held meetings for young people in different parts of Poland. Four were held online, and one took place during the UN Internet Governance Forum (IGF 2022).

How do neural networks work? Experimenting with our "Pandemonium Model" makes for a good start if you want to delve deeper into the subject

At the "Museum of the Internet" exhibit, you simply have to take a selfie.

We also worked with students and teachers to develop 15 lesson plans. Eight of them cover "Digital Brain", and seven deal with "Mission: Earth". The latter concern 5G, climate migration, biodiversity, population levels, data manipulation, reducing our carbon footprint and global warming. All lesson plans include videos recorded with experts in the field and the designers of the exhibits, and guided tours of the exhibition helping teachers prepare for forthcoming school trips.

The materials are available from our website and from the National Education Network.

The educational programme accompanying the exhibition "The Future is Today" has been active since 2020, co-run by the NASK National Research Institute. The programme and exhibition are elements of Education and Information Campaigns overseen by the Chancellery of the Prime Minister (previously Ministry of Digitisation). The educational programme will continue until the end of the first quarter of 2023.

Citizen panels on energy costs

Energy poverty is a situation where someone is unable to heat their home and/or use electrical devices. The problem directly affects up to 10% of the Polish society, and indirect consequences – such as poor air quality and strain on the healthcare system – have an impact on far more people. Energy poverty is caused by low pay, high energy costs and poor technical condition of buildings.

In 2022, the first "post-pandemic" year, we joined forces with the Stocznia Foundation to launch a cycle of debates on energy costs and the threat of energy poverty. We were the main partner of the debate. Citizen panels are a popular and effective method of developing social contracts, and we hope to launch them in Poland.

Our citizen panels consisted of two stages. First, 45 local meetings were held in different parts of Poland, with a total of almost 700 participants. The could be hosted by anyone, in particular local leaders (e.g. from NGOs, women's clubs) and representatives of local authorities. Participants discussed their situations and looked for solutions to bring down energy costs.

This was followed by a nationwide citizen panel. It included one hundred randomly selected people, representing "Poland in a nutshell". Experts explained the complexities of energy supplies and costs, outlined potential options of easing the crisis and answered questions. The panellists and experts worked together on finding solutions to problems identified at the local stage. The most common problem was that of old, poorly insulated homes which cost thousands of zlotys per month to keep warm. It turns out that Polish people are highly aware of the energy challenges, and they believe the most important goal is to modernise the country's energy supply networks.

How can we solve the problem of energy poverty? Citizen recommendations:

- Prepare a 15-year plan of action,
- Develop a precise system of managing activities and funds, in particular for those most in need,
- Modernise energy supply systems and include renewable energy sources,
- Increase the share of renewable energy sources in Poland's energy supply,
- Launch prosumer campaigns (local energy communities),
- More widespread information about the problem and potential solutions,
- More advice on energy supply and costs (wider scale and more effective messaging),
- Simplified system of answering questions and finding solutions to improving energy supply and insulation of buildings,
- Greater numbers of affordable and energy-efficient homes,
- Support for local grassroots and governmental initiatives to prevent and combat energy poverty.

The recommendations have been forwarded to representatives of local and governmental authorities, parliamentary clubs, NGOs, think-tanks and many other organisations concerned with energy costs and growing energy poverty.

99% of the participants in the nationwide event stated that citizen panels can contribute to improved civic participation in important political decisions, and that they should be held more frequently.

Meetings with experts

As we lifted the limits on visitor numbers that were originally imposed during the pandemic, we welcomed back experts to our Exhibitions. This creates a place for dialogue; it gives visitors an opportunity to interact directly with scientists and ask them questions, including those they might not ask elsewhere. It also allows the experts to test and develop their skills in scientific communication. In 2022, we hosted individual scientists and student science clubs. We conducted chemistry experiments, observations under a microscope, medical diagnostics and urban design.

Celebrating the International Day of Women and Girls in Science, on 11 February we hosted two physicists, a chemist and an ornithologist. The experts tackled the myth that all types of radiation are harmful, while our visitors learned about chemistry in the kitchen, about black holes, heard birdsong in the city and met an analogue female astronaut.

Experts who visited our Exhibitions in 2022:

- Fatima Hayatil – ornithologist
- Anna Konefał – chemist (University of Warsaw)
- Dr. Joanna Banasiewicz – biologist (Warsaw University of Life Sciences)
- Dr. Aleksandra Chojnacka – microbiologist (Warsaw University of Life Sciences)
- Filip Żołnikowski – multi-instrumentalist, constructor of instruments
- Student Association of Laboratory Diagnosticians (Medical University of Warsaw)
- FLOGISTON Chemistry Circle (Warsaw University of Technology)
- Student Cardiology Science Circle (Medical University of Warsaw)
- Student Spatial Economy Circle (Warsaw University of Technology)
- Student Astronomy Circle (Warsaw University of Technology)
- Poltransplant
- Humanoid Science Centre (Warsaw University of Technology))

At the "WE play with YOU" exhibition, Filip Żołnikowski prompted our guests on how to construct instruments on their own.

We inspire and lead dialogue on global and local challenges at the intersection of science and society.

After Hours

After an absence of over a year, the After Hours evening events made a welcome return to Copernicus in February. They are popular with adults, allowing them to visit us at times that suit them and without interruptions from children, to enjoy our standard attractions alongside special thematic events – every evening is different. We try to address current, complex and ambiguous problems. We examine them from different perspectives while giving our guests space to make their own views. In 2022, the meetings explored issues such as psychedelics, future cities, cybersecurity and the spring equinox. We welcomed a total of 6,481 visitors.

Topics of After Hours in 2022

- February: Blind Date
- March: Digital Brain
- April: Sound of Music
- May: Burn after Reading
- June: Fern Flower
- September: Alternate States of Consciousness
- October: Winemaking
- November: Metropolis
- December: The Longest Night

During the "Fern Flower" After Hours Evening for Adults, we witnessed plants that really knew how to dance. This was greenery in its most lively form!

Science Picnic

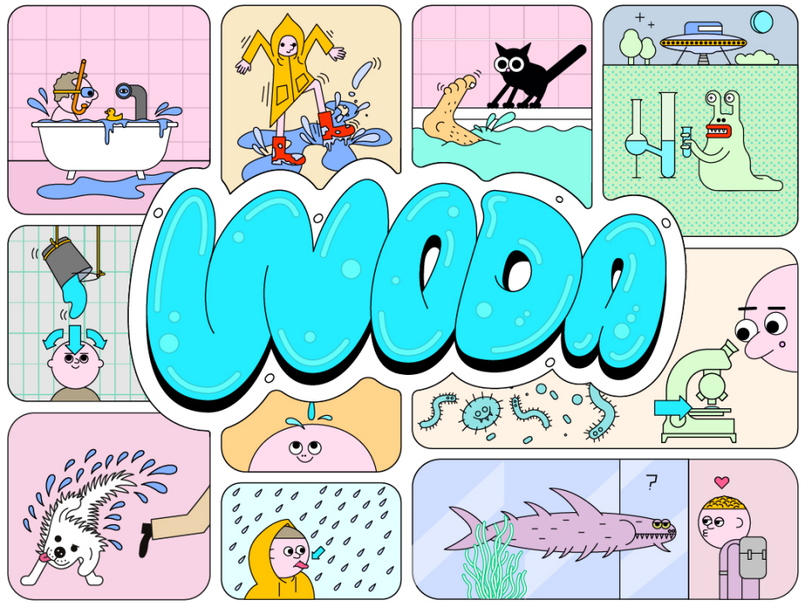
The 25th Science Picnic of Polish Radio and the Copernicus Science Centre was hosted right here, on our own site. Picnic tents and stands appeared in front of the building, at exhibitions and on the patio, at Pavilion 512 and at the Copernicus conference centre. This was not the first time the Picnic had changed venue in its longstanding history. It was originally held in Warsaw's Old Town, then at the Rydza Śmigłego Park, and in more recent years, before the COVID-19 pandemic, at the PGE National Stadium. The huge organisational challenge did not get in the way of the sheer delight of being able to host the Science Picnic again after a two-year break! As we were erecting the marquees, we felt the familiar, joyful atmosphere of experiencing science with others. It wasn't even ruined by the sudden gusts of wind, requiring us to rearrange the space just before the opening. The Picnic was attended by around 20,000 guests.

Lecturers at the 25th Science Picnic in 2022 included:

- Kamil Chmiel (Hydropolis Centre for Ecological Education)
  Water and Plastic
- Dr. Aleksandra Kardaś (climate scientist)
  How Water Vapour Can Accelerate Climate Change
- Leszek Pawlicki (Faculty of Physics at the Warsaw University of Technology)
  Electromagnetic Properties of Water
- Dr. Ryszard Szczęsny (PAS Museum of the Earth)
  Water as an Environment Supporting Life
- Aleksandra and Piotr Stanisławski (Crazy Nauka)
  How to Reduce your Water Footprint
- Dr. Małgorzata Woźnicka and Andrzej Jagielski (National Geological Institute)
  Underground water
- PAS Institute of Geophysics
  Live link with polar scientists at the Hornsund Polish Polar Station on Spitsbergen.

The overall theme was WATER. We watched it, studied it, experimented with it and discussed it. We investigated whether a water droplet can levitate, whether prehistoric sharks had healthy teeth and whether fish can swim in honey. We made boats, fished for ice cubes, made blooming paper blossoms and caught mist. We examined water from the Vistula River and biofluorescent algae under a microscope. We took virtual journeys to a forest, swamps and even to Spitzbergen. It was also a great opportunity to see brand-new inventions: state-of-the-art fins, edible packaging, water purifier prototypes and solutions used in medicine and diagnostics. We talked about the water cycle and water shortages, the impact of water vapour on climate, waves and changes to aquatic environments. Over 50 exhibitors presented shows, experiments and inventions. Guests listened to short lectures and talked to scientists, bloggers and explorers. Additionally, they could visit our Exhibitions and attend a show at the Planetarium as part of the entry ticket.

This was the first time that the Picnic was largely bilingual, as we wanted to make sure that all information and attractions were also available to our Ukrainian guests. The exhibitors included the Faculty of Ukrainian Studies at the University of Warsaw. It's one of the most important centres of Ukrainian studies outside of the country. Their stand hosted short language courses and quizzes about the country. Dr. Kateryna Terletska from the Minor Academy of Sciences of Ukraine, a governmental institution supporting gifted children, delivered a short lecture about oceans, "dead water" and "lake monsters". During the Picnic, we officially joined the Academy's latest project, "Learn Science in Ukrainian".



Our youngest visitors enjoyed picnic posters – also available as colouring-in sheets.

The Picnic was attended by over 20,000 people. That was twice as many as we were expecting!

The conference was co-financed from the programme "Social Responsibility of Science" of the Minister of Science and Education.

Festiwal Przemiany

Although they cover just 3% of the Earth's surface, cities are responsible for approx. 70% of global energy usage and 75% of carbon dioxide emissions. They are major flash points on our planet's climate map. We could think of them as lenses focusing the major challenges of today. According to forecasts, by 2050 around 68% of the global population will live in cities. So what can we do to make them healthier and more friendly to all creatures that inhabit them? It all depends on our knowledge, determination and willingness to abandon bad habits. We are helped by science, technology and nature itself. Following the motto "Let's Grow a City", during the Przemiany Festival we examined existing solutions and looked for new ideas.

We invited guest lecturers who have bold visions of the future and are familiar with its challenges. The festival was opened by Thomas Rau, pioneer of sustainable architecture. The world-famous architect, entrepreneur and innovator talked about designing cities able to change and adapt to the natural world. Dr. Matthew Lutz presented the latest research into the collective behaviour of eusocial insects and their architecture. At panel sessions, experts discussed subjects such as zero emissions, passive architecture and urban microclimates.

The festival hosted its first Experimentarium session – a space where nature and technology intertwine, and original, innovative ideas come about at their intersection. Participants observed bees, ants and termites. There's a lot we can learn from eusocial insects. They live in highly hierarchical societies and are excellent architects. Termites, for instance, have incredibly efficient ventilation systems in their mounds and are able to survive in rapidly changing conditions. And as for ants: certain species actively cultivate fungi, common black ants "farm" aphids for their honeydew, while wood ants climb onto one another to build bridges and ladders in mid-air. Twelve-year-old Staszek spent two hours studying ants. He listed species names in Latin and could explain their caste systems. He revealed that he has six small ant colonies at home, and the latest brood of workers has just hatched. His parents are supportive, but they find it difficult to find activities where he can develop his passion. "Maybe he could find some help with his ants?" they asked.

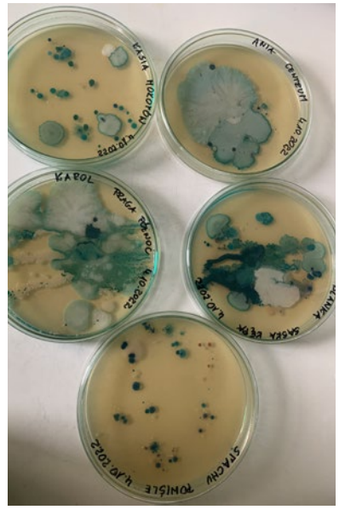
The space illuminated by bioluminescent bacteria and algae resounded with cries of amazement. Research work is ongoing, seeking to find ways to use such organisms to illuminate shop fronts and bike paths. A particularly popular exhibit was a map of Warsaw created by slime moulds, regarded by scientists as some of the most mysterious organisms of our time. One of the participants at the festival was delighted to take over our stand, where she talked about such microscopic cartographers to other visitors. The project was also picked up by a lecturer at the Warsaw University of Technology, who is planning to use our slime moulds when working with his students.

The festival debates presented utopian visions and explored ideas such as living in cities in the clouds, underground or under a glass dome. It turns out that concepts of perfect metropolises include plenty of inspiration. They are also excellent as theoretical exercises following the debating club formula, where participants start off by splitting into "for" and "against" camps before trying to persuade their opponents to change their minds.

The Przemiany Festival wouldn't be the same without artists. The exhibition "Code of the City" was prepared jointly with the Faculty of the Arts at the Pedagogical University of Kraków. The invited artists explored the ideas espoused by flâneurs – lone individuals who saunter around the city observing the scenery as if a spectacle on a theatre stage. They tried to find their way among networks and algorithms and linked devices (photos by Kuba Pierzchała). The sense of technological and data overload was expressed through a traditional collage (Witold Winek) and the glitch effect which puts our perception to the test (video by Madgalena Lazar). In Jacek Złoczowski's installation, the human observer was replaced by an AI.

The Przemiany Festival was visited by 7,580 people. We were forecasting around 2,500.

The stand run by Dr. Artur Zagajewski was constantly thronged with fans of the charming botanist.



It is said that each city has a unique microbiome. This is the result of our research in five districts of Warsaw.

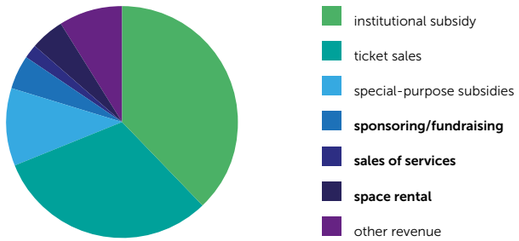
Faced with a choice of different routes along the Warsaw metro system, the slime mould started off at the Kabaty Forest in the south of the city.

This turbine can catch the wind from different directions, unhampered by differences in air circulation or skyscrapers.

We secure funding for activities and development.

The costs of operating the Copernicus Science Centre in 2022 came to PLN 73,476,448.74. The institutional subsidy covered 41% PLN of this sum. The rest of the expenditure was financed from our own revenues, which, in line with the strategic plan, we have been systematically increasing – by securing special-purpose subsidies for key projects, developing partnerships, looking for sponsors, and developing sales of products and services.

Revenues



The largest share of our own revenue comes from ticket sales. This is a revenue stream that would be hard to boost: we are already open seven days a week, from early morning to evening, and the building quite often gets filled to maximum capacity. Moreover, 2022 was unexpectedly the best year ever in terms of attendance. Although we were still limiting the number of visitors in January and February due to the pandemic, and although an inefficient air conditioning and ventilation system prompted us to put certain caps on admission numbers in the exceptionally hot summer months, we nevertheless welcomed a total of 1,209,129 visitors to the Exhibitions and Planetarium in 2022. Frankly speaking, we did not anticipate that our audience would return so quickly. The tourism industry had been predicting a post-pandemic recovery of the market within three years – and yet, Copernicus set an attendance record already in the second year after the pandemic. Although we offered free entry to refugees from Ukraine for several months, the financial result was ultimately much higher than planned. We had counted on 16 million PLN in revenue from ticket sales, but the final figure was close to 25 million PLN.

Copernicus' programme activities are further supported by monies raised from sponsors and individual donors, by income from the sale of products and services, and by income from space rental. In 2022, we aimed to raise 8 million PLN from these other sources.

Thanks to the return of our tenants and new fundraising programmes, we were able to exceed this amount – bringing in 9.2 million PLN, the highest result in many years.

Rental income exceeded the planned level of 3 million PLN by more than 25%, amounting to PLN 3.8 million. In May, we also reverted back to the full rental rates for catering and retail owners. Moreover, we were able to make available the car park, which had been closed for the construction of the Copernican Revolution Workshop available to visitors earlier than had been planned. Following the lifting of pandemic limits, Conference Centre resumed hosting events in March. However, overall rental income in 2022 is still lower than the levels seen before the pandemic (in 2019); we aim to raise it in the coming year.

We secure specific-purpose grants for carrying out the most important projects.

In 2022, we harnessed a total of PLN 43.2 of specific-purpose grants:

- for the implementation of the "Discovery, Imagination and Activity Zone (SOWA)" initiative – a grant from the Polish Ministry of Education and Science

  The total grant for this purpose, awarded for 2020–2023, comes to more than PLN 43,000,000. As part of the 2022 activities, we fitted out 18 new SOWA centres in various cities in Poland. We also began producing exhibits and purchasing equipment for further locations. Expenditure related to these activities amounted to PLN 21.1 million in 2022.

- for the construction of the Copernican Revolution Lab building – subsidies from the City of Warsaw and the Regional Operational Programme for the Mazovian Voivodeship

  We have settled accounts for 5.2 million PLN from the special-purpose subsidy from the City of Warsaw, out of the total of 27.7 million PLN awarded in 2022. We have also settled accounts for 5.9 million PLN from the special-purpose subsidy from the Regional Operational Programme of the Mazovian Voivodeship, out of the total of 16.7 million PLN awarded for 2014–2020.

- for the implementation of the "Science for You" programme – a subsidy from the Polish Ministry of Education and Science.

  A special-purpose subsidy of PLN 6.9 million allowed us to fund another year of the "Science for You" program. We harnessed 100% of that subsidy. The funds were used for the educational visits made by the Sciencobus and Planetobus, workshops for

recipients of the Home Experimentation Kit, the construction of a new travelling exhibition on mathematics, as well as the purchase of new films for the Planetarium and a humanoid robot with the face of Nicolaus Copernicus, which will help us honour the anniversary of our patron's birth in 2023 (more about the “Science for You” programme on page 26)

- for the creation of “The Future is Today” exhibition and the implementation of the related educational programme – a grant from the Operational Programme “Digital Poland” 2014–2020. In 2022, we harnessed more than 3.3 million PLN of the total amount of 9 million PLN earmarked for 2020–2023. The programme is being implemented in cooperation with the NASK National Research Institute under the project “Education and Information Campaigns.” In 2022, we opened up the second module of “The Future is Today” exhibition (see page 15 for more, the activities of the education programme are described at p. 50)

Unfortunately, we were unable to secure funding for our project to create an Urban Biodiversity Garden around our buildings.

We are boosting our income from fundraising and products and licensing sales.

Fundraising – 3.9 million

The main segment of fundraising revenue comes from sponsorship support. It amounted to 3.9 million PLN in 2022, of which 3.2 million was direct income from sponsorship agreements, while 614,000 came from sponsorship donations and benefits from barter agreements. Individual donors supported our activities with a total of 30,000 PLN.

Sales of products and services – 1.5 million

Our biggest share of revenue in terms of sales of products and services came from the licensing of educational kits to our commercial partners (four different Modular Nature Lab sets), and products of Copernican Revolution Lab (Multilab Physics, Mobile DIY, and an educational kit for pre-schoolers), for an amount in excess of 708,000 PLN. From the sale of science shows, licenses for planetarium shows, the rental of the “Captured Mind” module, as well as the commission on the turnover of the gift shop (which we obtain thanks to a favourable lease agreement), we raised a total of 653,000 PLN.

Strategic Partners and Supporting Partners

Samsung Electronics Polska – Strategic Partner, Exclusive Partner of the Robot Theatre, Partner for Temporary Exhibitions, Partner for the series “After Hours – Evenings for Adults by Samsung”, General Partner of the Copernican Revolution Lab
PLUS – Supporting Partner, Exclusive Partner of the Bzzz! Exhibition
E.ON Polska S.A. – Supporting Partner, Exclusive Partner of the High Voltage Theatre

Space partners

Raytheon Technologies – Exclusive Partner of the Robotics Laboratory, Exclusive Partner of the EduFactory
BASF – Exclusive Partner of the Chemistry Laboratory

Special project partners

Deloitte Foundation – Partner for the project “Together for a Better Future”
ING Children's Foundation – Partner for the project “Together for a Better Future”
Boeing – Partner for the “Dream Designers” project
BOŚ Foundation – Partner of the YEC project What's in the air? Investigating particulate pollution”
Mercedes Benz Polska – Partner of the first part of the exhibition “The Future is Today: Digital Brain?”
Saint-Gobain – Investment partner for the Copernican Revolution Lab

Consortium of the Copernican Revolution Lab

My Bambino
BeCREO Technologies

We are securing space for R&D activity and offices

After many years of separation, our whole team has been reunited at last! In June, some of us moved from temporary rented offices at Wybrzeże Kościuszkowskie Street into the brand-new building of the Copernican Revolution Lab. No one minds that the offices aren't fully furnished yet and that some of the research areas still stand empty – we are simply delighted to be back together again. Our challenge was to fit out the building – which was no easy task, due to fluctuating costs and transport problems. In spite of setbacks, we completed around 90% of our plans. We are aiming to acquire the remaining fixtures and fittings by March 2023

The project of building and fitting out the new building of the Copernican Revolution Lab is nearly complete.

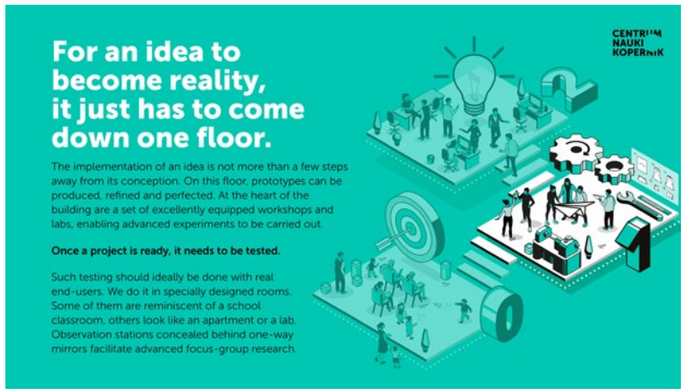
The construction of the Copernican Revolution Lab coincided with the outbreak of the COVID-19 pandemic, and the finishing works were interrupted by Russia's attack on Ukraine. These unpredictable, violent events put the completion of the project under threat. Costs of building materials snowballed and illness plagued our contractors and subcontractors, as well as Copernicus' own team. The rapidly increasing inflation at home and abroad forced us to cut the budgets for building work and fixtures and fittings. Following negotiations with the Main Contractor and ongoing updates to timetables, specifications and budgets, the completion date was postponed by just two months. This was specifically due to the lengthy procedures involved with connecting the building to the electricity grid. The building was handed over to Copernicus on 18 May 2022.

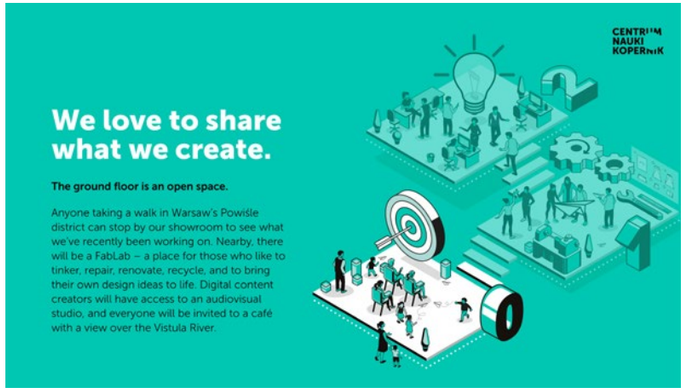
As well as standard office equipment, the Copernican Revolution Lab also needed laboratory fixtures, specialist tools for conducting experiments and fittings for workshop spaces. We have already obtained equipment such as microscopes, autoclaves, workshop fittings, IT equipment and research paraphernalia for studying behaviour and conducting observations. The workshops will soon be fitted out with specialist furniture and kit such as a laser cutter, lathe and milling machine. The laboratories will receive 3D printers, while the research space will be equipped with a Noldus integrated observation system for behavioural analysis and software for statistical analysis and automatic data processing. The two global crises have had a negative impact on acquisition processes: potential suppliers have been raising their financial expectations or simply curbing their risk by not submitting tender applications. This led to prolonged purchasing procedures, resulting in delays.

The new building of the Copernican Revolution Lab

Floor by floor – working at the Copernican Revolution Lab

The Copernican Revolution Lab is a comprehensive space for R&D work. We work with partners to create new exhibitions, displays, lesson plans, educational activities, interdisciplinary projects and events. The building has been designed such that it can be used to create complete projects – from the first idea all the way to the final product.





Collaboration

We love sharing our new space with other researchers working in education. The Copernican Revolution Lab welcomes scientific institutions, engineers, psychologists, sociologists, teachers, educators, artists, inventors and representatives of business circles. They can use our infrastructure to devise their own projects or join those conducted by our own team. We hope that the Copernican Revolution Lab will become a melting pot where bold ideas will be forged into innovative solutions.

The official launch of the Copernican Revolution Lab is slated for March 2023.

Activities of the Copernican Revolution Lab

- Designing exhibits, educational aids, lesson plans
- Testing the usefulness of finished products
- Developing science communications formats
- Developing methods of designing educational solutions with the participation of future users
- Developing an understanding of learning environments and scientific and educational practices of students and teachers.

Together with members of the Copernican Revolution Lab consortium, we are conducting R&D activities and developing and launching products. Members of the consortium are **Moje Bambino Sp. z o.o. sp. k.** and **BeCREO Technologies Sp. z o.o.**

Our activities are also supported financially by our partners. The Main Partner of the Copernican Revolution Lab is **Samsung Electronics Polska Sp. z o.o.**, and the Investment Partner is **Saint-Gobain Innovative Materials Polska Sp. z o.o.**

The task "Constructing the building of the Copernican Revolution Lab as part of the expansion of the Copernicus Science Centre" is co-financed by the Capital City of Warsaw – targeted subsidy no. C/OM/VII/P3/99/U-263/2018-2021 dated 31 October 2018, to the sum of 27,690,101.00 zlotys.

Warsaw

We have also received co-financing of 16,765,42 zlotys from the European Regional Development Fund as part of the Regional Operational Programme of the Mazowsze Voivodeship 2014-2020, Priority Axis and utilising R&D activities in the economy, Action 1.1 Research and development activities at scientific institutions – project co-financing agreement no. RPMA.01.01.00-14-9876/17-00 signed on 31 October 2018.

We are working to maintain continuous operations, agility and development potential.

The success and development of our institution relies on maintaining a motivated, engaged and effective team. We offered two pay rises in 2022 to ensure our salaries remained competitive. We have introduced new assessment systems and additional benefits. Our organisational structure changed following the launch of the Copernican Revolution Lab and the introduction of new procurement procedures. We are also preparing to introduce an electronic document-management system.

We are working to maintain a committed team, tailored to the Copernicus Science Centre's needs and capability.

It is important to us that Copernicus is seen as an attractive employer offering competitive salaries and providing opportunities for professional development. Following pay rises in 2021, over 80% of our salaries fall in the bracket of 80–120% of the market median. A following two pay rises in 2022 meant we maintained the same level in spite of inflation. The first pay rise was 10% (12.4% inflation in April), followed by another 5% (17.2% inflation in September).

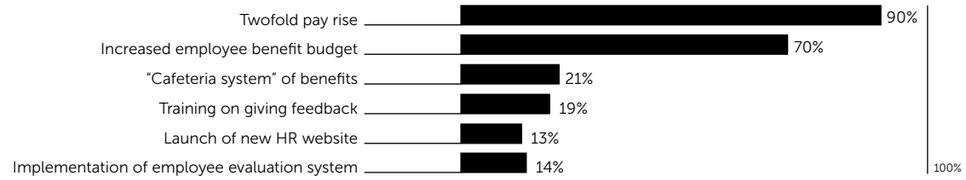
We have introduced a system of regular employee evaluations, developed in 2021. Working with representatives from different departments, we adapted the assessment criteria to the specifics of each job. This was followed by training courses. We tested the new system during six-monthly professional reviews, and used it to conduct annual assessments at the end of the year.

We consider the satisfaction levels of our visitors as well as all our employees. Each year, everyone can share their views on different aspects of our work, collaborations, benefits and relationships. We use our "Engagement Barometer" surveys to discover which issues are seen as being of the greatest importance. This helps us focus on the most important challenges. The results of a survey conducted in late 2021 revealed that most of our staff felt underappreciated by their managers. To help combat this, we held a cycle of training courses on giving effective feedback. The 20 meetings were attended by 190 participants. We are already starting to see improved results. In the 2022 survey, some of the managerial practices (such as sharing information, providing support and inspiring confidence) were rated more highly.

In 2021, the attractiveness of the additional benefits provided to staff was rated poorly (3.12 out of 5). It turned out that many of us would prefer activities different from those offered by the Multisport card. An alternative solution is the "cafeteria system" of benefits, offering more diverse attractions, such as cinema and theatre tickets. 78% of our staff expressed a preference for such a system. This will be introduced in January 2023, and we are already seeing an improvement in satisfaction levels (3.49 out of 5).

The team were also pleased with the introduction of the new HR website, providing full information on documentation, benefits and key contacts. It also includes a sign-up page for internal training courses and materials on wellbeing, such as healthy nutrition, mental health and personal development.

Which of the above initiatives is the most highly rated?



The results of this year's Barometer show a slight increase in engagement by 0.3. Given the various circumstances beyond our control – including Russia's invasion of Ukraine, the highest inflation levels since 1996 and rising living costs – any positive change should be celebrated.

The survey turnout was 73.3% (74.3% in 2021). Our staff are fond of sharing their views – and that's a good thing!

We are working to increase the efficiency of implementation of institutional goals.

Our organisational structure changed following the launch of the Copernican Revolution Lab and the introduction of new procurement procedures. Since July 2022, the Copernican Revolution Lab now comprises three departments: the Department for Competencies of the Future, the Laboratory Department, and the Department for Educational Solutions. Moreover, a new Public Procurement Department was split out from the previous Legal and Public Procurement Department (more below).

In 2021, we noted that our programme-related employees (such as physicists and geneticists) spend far too much time on procurement procedures, which is not one of their primary tasks. The scale of our activities is so great that in many cases we need to conduct complex and lengthy proceedings on EU levels and above. This was the case when we were obtaining equipment for the Copernican Revolution Lab and SOWA zones, as well as exhibits for "The Future is Today" exhibition. One of our goals for 2022 was to streamline these procedures. We started this with an organisational change, creating the Public Procurement Department. As well as formally looking after tenders, it also handles all other procurement-related procedures. Its team of experts process and document all procurements, select suppliers, prepare contracts and ensure all documentation is circulated internally. The staff members placing the procurement orders describe them in detail, estimate costs and coordinate the process.

We introduced the new system midway through last year, so it is too soon to assess its effectiveness, but we are hoping that it will result in significantly shorter procurement times. We are also planning training courses on how to best describe the object of a procurement contract and estimate the costs. We know that some of us struggle with this, yet having carefully prepared documentation is crucial for the process to be conducted in the shortest possible time. We are also developing IT tools to help streamline tender and procurement processes. They will be used to prepare procurement and procedural plans, will help us monitor orders, and will be integrated with budget planning tools.

In 2022, we launched formal and technical plans to introduce an electronic document management system. It will enable comprehensive management of documentation, from handling incoming and outgoing shipments, through separating and assigning correspondence, to completing documentation and archiving. We were originally planning to introduce the system in October 2022. We developed office and archival instructions and purchased the necessary elements of technical infrastructure. However, the NASK National Research Institute (operator of the system) postponed the launch to 2023.

We will use the additional time to update the list of files to implement the documentation categories in accordance with the collected suggestions when implementing the system.

Our team

As of 31 December 2022, Copernicus employed a staff of 377 people (together filling the equivalent of 361.73 full time positions), including 152 men and 225 women. The average age of those employed at our institution was 38 years, with thirty-six staff members being under the age of 26.

284 members of the team hold higher-education diplomas, 6 have some post-secondary education, 55 completed secondary education, 6 have vocational education, 3 have primary or lower secondary education (no data available for 23 people).

In 2022, more than 100 staff members participated in courses and training. Since December 2022, the entire team has been able to use an English language learning platform.

In 2021, due to the pandemic, our Christmas meeting had had to be held outdoors. This time, in 2022, we were finally able to meet at Copernicus.

Programme Council of the Copernicus Science Centre

Prof. Łukasz Turski, Centre for Theoretical Physics, Polish Academy of Sciences – Chairman of the Council

Prof. Aleksander Bursche, Department of Archaeology, University of Warsaw – Vice-Chairman of the Council

Prof. Marek Abramowicz, Prof. Emeritus of Chalmers University, Göteborg

Prof. Roman Cieślak, Rector of the SWPS University of Humanities and Social Sciences

Prof. Magdalena Fikus, Prof. Emeritus of the Institute of Biochemistry and Biophysics, Polish Academy of Sciences

Catherine Franche, Executive Director of the European Network of Museums and Science Centres Ecsite

Maya Halevi, Director of the Bloomfield Science Museum in Jerusalem

Prof. Dariusz Jemielniak, Vice-President of the Polish Academy of Sciences, head of the Management In Networked and Digital Societies (MINDS) department at Kozminski University

Maria Mach, President of the Board of the National Children's Fund

Mirella Panek-Owsiańska, expert in corporate social responsibility and social communication; co-founder of the "Space for Girls" foundation.

Prof. Tomasz Sowiński, Institute of Physics, Polish Academy of Sciences

Dr Barbara Streicher, Managing Director, ScienceCenter-Netzwerk in Austria

Prof. Tomasz Szkudlarek, head of the Department of Philosophy of Education and Cultural Studies, Institute of Pedagogy, University of Gdańsk

Prof. Jan Szmidt, head of the Department of Microsystems and Electronic Materials Technology, Institute of Microelectronics and Optoelectronics, Warsaw University of Technology

Rosalia Vargas, President of the Portuguese National Agency for Scientific and Technological Culture "Ciência Viva" and Director of the Pavilion of Knowledge in Lisbon

Hanna Wróblewska, Vice-President of the ICOM POLSKA National Committee of the International Council of Museums, Deputy Director for Academic and Exhibition Affairs at the Warsaw Ghetto Museum

The management personnel of the Copernicus Science Centre

Robert Firmhofer – Chief Executive Officer

Irena Cieslińska – Programme Director

Joanna Kalinowska – Director of Development

Ewa Kloc – Administrative Director

Anna Lipińska – Deputy Programme Director for Visitor Experience

Dr Krzysztof Murawski – Deputy Programme Director for Innovation

Dr Katarzyna Młynek – Deputy Programme Director for Education and Science Communication

Dr Przemysław Wielowiejski – Deputy Administrative Director for Investments

Barbara Juszczak – Deputy Administrative Director, Chief Accountant

The Copernicus Science Centre is a member of the following associations:

European Network of Science Centres & Museums (ECSITE)

Association of Science and Technology Centers (ASTC)

SPiN Association

European Science Engagement Association (EUSEA)

International Planetarium Society (IPS)

International Laser Display Association (ILDA)

EU ThinkTank

Polish Conference & Congress Association

Power of 4

Awards

Awards we received in 2022:

Copernicus CEO Robert Firmhofer was awarded the “Medal of the Centenary of Poland’s Regained Independence” by the President of the Republic of Poland.

We returned from this year’s conference of the American Association of Science and Technology Centers (ASTC) in Pittsburgh with the Roy L. Shafer Leading Edge – in recognition of our work on behalf of the Ukrainian community.

Our biologist Stanislaw Łoboziak received the “Science Populariser” Award given by the Polish Press Agency’s “Science in Poland” news service.

The Association of Public Relations Firms honoured the “Young Girl Builders” workshop with “Golden Clip” awards. We received them in the categories “Real Estate, Construction, Home and Interior” (taking Gold) and “Sustainability and CSR Communications” (taking Silver).

The “Young Girl Builders” workshop also received a silver statuette in category S (innovation with social relevance) in the “ESG Innovators” competition of the Polish ESG Association.

Our “Science Celebration” demonstration won the Grand Prix in the European Science Show Competition "Science Me!"

The Copernicus Science Centre is a cultural institution.

Its organisers are the Capital City of Warsaw, the Minister of Science and Higher Education, and the Minister of National Education.

Legal Basis

Act of 25 October 1991 on organizing and running cultural activity (Journal of Laws of 2020, item 194),

Agreement of 1 June 2005 on establishing a joint cultural institution, named the „Copernicus Science Centre" (as amended),

The Statute of the Copernicus Science Centre, attached as Annex No 1 to the above-mentioned Agreement.

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Organisers

Warsaw

Ministerstwo Edukacji i Nauki

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