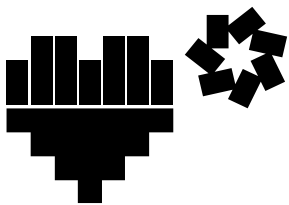


to strengthen the research infrastructure and scientific potential of the region. The asterisk, whose form resembles a footnote in a text, refers to the scientific character of the event and its “additional” nature, thus becoming an effect of cooperation between the academic institutions of Katowice. It also refers to the shape of a cog – a particle associated with progress but mostly with the gradual launch of subsequent processes, which enable transformation.

The European City of Science logo contains the values that bring closer and motivate to undertake innovative actions and ongoing development. The two-layered heart combines two levels of perceiving the city: traditional, industrial and mining as well as innovative, which demonstrates its strength, dynamics and creativity. It is also an expression of multidimensional and constant transformation within the Academic Consortium – the association of Silesian universities collaborating with one another



**European  
City of Science  
Katowice 2024**

On the occasion of the Interuniversity  
Inauguration of the Academic Year 2022/2023

- ↳ Universities Are the Public Good
- ↳ *Per Scientiam ad Astra*. Through Science to the Stars
- ↳ Join the *Urban Tissue*
- ↳ Building the *City of Science*
- ↳ Paths and Pillars of the *City of Science*
- ↳ So Far in the *City of Science*



Polish Version

Academic Consortium **Katowice – City of Science**

Karol Szymanowski  
Academy of Music  
in Katowice



Academy of Fine Arts  
and Design in Katowice



Academy of Physical  
Education in Katowice



Silesian University  
of Technology



Medical University  
of Silesia in Katowice



University of Economics  
in Katowice



University of Silesia  
in Katowice



# Universities Are the Public *Good*

In December 2021, Katowice was awarded the title of the European City of Science 2024, when it becomes an informal capital of European science. The title is a joint success of the city and seven universities, which established the Academic Consortium Katowice – City of Science, consisting of: Karol Szymanowski Academy of Music in Katowice, Academy of Fine Arts and Design in Katowice, Jerzy Kukuczka Academy of Physical Education, University of Economics in Katowice, Silesian University of Technology, Medical University of Silesia in Katowice, and University of Silesia in Katowice.

The joint inauguration of the academic year is an expression of pride and joy with this success.

## Science in the City of Science

The agreement between seven universities is an alliance of diversity, which provides the possibility to cooperate in research and education, as well as to solve social, economic and environmental problems of the region in every aspect. The direct goal is to use science and higher education to transform the city and region, improve the quality of life for the inhabitants, and ensure dynamic development of the whole scientific Silesia and Zagłębie Dąbrowskie. In light of three crises that affected us – pandemic, war, and increased energy costs – science is our insurance for now and for the future.

By acting together, the universities are able to respond to the most important and extremely complex civilisational challenges faced by the city and region. These include health protection, energy, technology and social transformation in the post-heavy industry age, climate change, digitisation and cybersecurity, depopulation and improvement of general education.

## For the Environment

Environmental care remains one of the greatest challenges for Silesia. Therefore, it should come as no surprise that the issues related to improving the quality of air, water, and the very life in the city rank high on the list of our scientists' priorities. In 2019, employees of the Silesian University of Technology patented a device for dedusting fumes from low-power combustion installations fired by coal and biomass. The invention contributes to a significant reduction in emissions of solid fuel fumes in heating devices in boilers, chimneys and furnaces. Apart from that, the University of Technology's scientists study the impact of indoor air on the health of children attending kindergartens during winter and spring but also deal with the protection of natural values in land-use planning.

Scientists from the University Laboratories for Atmosphere Control (ULKA) study atmospheric air pollution, its spread and impact on the human health and environment. For this purpose, they use the Overhead Mobile Laboratory for Atmosphere Control (a distinctive hot air balloon often floating in the Silesian sky), the Field Mobile Laboratory and modern stationary laboratories. In July 2022, USil scientists carried out research on samples from the Oder River that may help in discovering the causes of the ecological disaster in the river.

→ by acting *together*, scientists may respond to the biggest *challenges*



Scientists from the University of Economics in Katowice have contributed to establishing the eco-bot, a personalised virtual energy assistant providing consumers with information on their daily energy usage and giving individual advice on saving energy. Last but not least, employees of the Academy of Fine Arts and Design in Katowice promote the use of eco-friendly materials and techniques in craftsmanship and artisanal processes.

## For Health and Quality of Life

Since 2018, the Academy of Physical Education in Katowice has been implementing the project for people over 45 that supports healthy ageing. The Medical University of Silesia in Katowice has completed research on preventing overweight and obesity in children and adolescents as well as analysed the impact of the pollutants listed in the European Environment and Health Action Plan (including heavy metals and indoor air pollutants) on the health of society.

## In the Times of the Pandemic

While the COVID-19 pandemic was raging in the world, Upper Silesian scientists were developing solutions that helped us fight the battle against the coronavirus. At the University of Silesia, research on the COVID-19 impact on selected spheres of social life was conducted. The main focus of the scientists representing various fields of science was put on school education, interpersonal relations, religion and its links to complying with restrictions as well as the disease's impact on the human respiratory system and speech. Employees of the University of Economics in Katowice cooperated with over 30 universities from around the world and studied activities supporting entrepreneurs during the pandemic. The Medical University of Silesia carried out trainings for physical therapists, pharmacists and lab diagnosticians in anti-COVID-19 vaccinations. Moreover, the Medical University of Silesia conducted a comprehensive study of the population of the Katowice urban area for

the prevalence and risk factors of SARS-COV-2 virus infection in the region. A team of the Silesian University of Technology employees developed a system to support COVID-19 medical imaging (CIRCA) based on patients' lung X-rays, as well as a system for individual patient isolation and medical personnel protection against the infection (MedShield) by isolating a patient's head while performing the procedures.

#### For Culture

One of the primary goals of universities is their culture-forming role. Katowice universities pass this test with flying colours by implementing artistic projects of great significance. The Karol Szymanowski Academy of Music organises the Violin Biennale Festival and Competition,

during which the musical works of Mieczysław Wajenberg are presented, and artists from the University of Silesia organise the MusicAlive Piano Competition. The Academy of Fine Arts in Katowice regularly hosts events such as AGRAFA: the International Design Conference and International Student Design Competition, the Polish Print Triennial (the oldest prestigious overview of Polish contemporary graphic art) and "A well-designed book – let's start with children" – the event is to draw attention to the needs of the youngest readers and a wide range of issues related to designing books for children.

#### Locally and Globally

One of the first significant initiatives that brought together all Silesian

→ *transformation begins today*

universities in the region in the common implementation of the social mission was the Silesian Science Festival KATOWICE. This initially small event held in Katowice is currently one of the largest popular science events in Europe, enabling thousands of participants to experience

and get to know reality together. The latest edition of the festival in 2020 took place along the Rawa boulevards, thanks to which the universities have become the driving force behind the spatial transformation of Katowice. In March 2021, experts from the Academy of Fine Arts and Design in Katowice presented new signs for the City Information System. The universities, working in cooperation with the City, Metropolis GZM and Silesian Voivodeship, keep introducing changes important for the inhabitants; the support of the European Commission expressed through the European City of Science 2024 title may significantly accelerate these processes. *The transformation begins today.*

# *Per scientiam ad astra.* Through Science to the Stars



#### Rawa River

The proposed changes in the city began with pondering over the possible improvements of the public space of the University of Silesia, whose main campus is based in the very heart of the city, by the Rawa river. The attempt to design a useful green space that would address the needs of students, PhD students, scientists, and city inhabitants, resulted in a meeting between architects, urbanists, experts in science communication and also Katowice residents. It was us who started the discussion.

Its first outcome was to keep a better watch over the river/non-river flowing through the heart of Katowice. The Rawa River, embedded within concrete walls and partially hidden under the slab of Market Square in Katowice, present mostly during downpours, became the backbone of the open-air 5th edition of the Silesian Science Festival KATOWICE. The organisation of such a large scientific event at this location brought about two important observations. First of all, the universities in

Katowice are located on both sides of the river and their proximity makes effective collaboration possible. Secondly, the condition of the Rawa requires taking measures that lead to its revitalisation.

The academic community perceives the Rawa as a symbol of the responsibility of science towards the residents. Science and education are the repayment of a debt incurred towards many generations of inhabitants of our region, affected by health-deteriorating jobs, ecological

destruction of the environment, wasteful exploitation of mining resources as well as social problems typical for industrial areas.

In the City of Science, the Rawa will be simultaneously a symbol, experiment and instrument for transformation of the centre of Katowice, the whole city and region through advanced science and education.

The universities associated in the project are at the foreground of a major transformation of the region, which is on the verge of the next →

→ The academic community perceives *the Rawa* as a symbol of the responsibility of science towards *the residents*

category organised by “Science in Poland” website of the Polish Press Agency and the Ministry of Higher Education and Science. The Festival has recently been awarded in the “Marka – Śląskie” competition for its significant contribution to the development of the Silesian Voivodeship. The award given by the Regional Chamber of Industry and Commerce in Gliwice in the “SuperMarka – Śląskie” category proves that through its activities, the ŚFN KATOWICE has become an outstanding symbol of the Silesian Voivodeship and a brand recognisable in Poland and abroad.

This Festival is not about buildings, experiments and shows, but mostly about people – scientists, administrative employees, students, PhD students and others, who share their joint passion for science communication, making it more available and popular with recipients at every age. It is also about cooperation – inter-university, international, cross-sectoral. For years, the universities have obtained huge support in organisation of this event from the authorities of the city, metropolis and region who believed that scientific dialogue is one of the best tools for change and improvement of the quality of life.

The 6th ŚFN KATOWICE takes place on 3-5 December 2022 in the International Congress Centre. This year, the audience will be invited to the special Coal Zone and the European EXPO of science festivals.

In the City of Science around the Festival, there will be similar initiatives and smaller events for all groups of inhabitants. In 2024, we are planning to launch a special civic programme, popular science programmes for kindergartens and schools, and get secondary school students involved in active implementation of changes in the city, cooperate with teachers, create meeting points for the elderly and excluded, as well as organise numerous cultural and art events. In 2024, every inhabitant of the region will be able to enter a university or meet science face to face in their everyday lives.

#### Our First Joint Event

The Charity Concert “City of Science for Ukraine” was the first joint event organised by the Academic Consortium Katowice – City of Science. The Polish-Ukrainian band Dagadana performed on the stage along with other music groups consisting of students and employees of the universities. The residents could take part in science shows, workshops and an exhibition of artworks. The debate on challenges related to refugees in Poland was a key element of the entire event. We have also organised a charity auction with multiple items donated by universities and the City of Katowice auctioned off, including artworks by students and employees. The goal of the concert was to support the fundraiser for the needs of Ukrainian students, PhD students, and their families. We managed to collect over PLN 26,500.

#### Common Future

Apart from the concept of revitalising the Rawa River, the Academic Consortium City of Science Katowice intends to create new infrastructure, especially for natural, experimental and engineering research. The new facilities are to become the cornerstone of a modern campus combining natural, exact, medical and social sciences with humanities and the arts. Importantly, Silesian universities want to open their buildings and involve the entire society in science to answer the challenges of the transformation. The latest trends in science communication and urban planning emphasise that the age of building enormous centres and museums has come

to an end. Thus, based on the existing academic facilities and future investments, the first Network Science Centre in Poland will be established. It will involve the city and the universities as an open space for experiment, exhibition and communication of science. This space will be a venue for constant dialogue between scientists and inhabitants through multilateral knowledge sharing. The Consortium’s desire is to form a City of Science where everyone co-creates an active society (more on pages 8-9).

→ The City of Science, where *everyone* co-creates the *active* society

civilisational leap. The civilisational transformation of the region does not mean breaking up with the unique identity of Silesia and Zagłębie Dąbrowskie, which originated thanks to the heavy industrial heritage of the region. On the contrary, a highly technical culture, the inhabitants handling advanced technology and working organisation for centuries, the primacy of competencies and diligence in the assessment of a human being, and the resulting tolerance, provide great support for building the culture of innovation and smart industries here in Silesia more than anywhere else. And just like centuries ago, in the near future the industry of science and education will attract employees and inhabitants from different parts of Poland and the world, in particular, the most talented young people from Silesia and Zagłębie Dąbrowskie.

#### ŚFN KATOWICE – the Recipe for Cooperation

The ŚFN KATOWICE is one of the largest science communication events in Poland and Europe. It has been organised for several years now by universities from Katowice, together with three universities from Częstochowa and Bielsko-Biała. The previous five editions attracted almost half a million people on-site and online. The Festival has won multiple awards, including the “Golden Rose” – the first prize for the best marketing campaign among popular science events during the EUPRIO (European Association of Communication Professionals in Higher Education) conference. It also won the prestigious Popularizer of Science 2020 competition in the team

→ In 2024, *every* inhabitant of the region will be able to enter a university or meet science face to face in their *everyday* lives

#### Among the Capitals of Science

These plans were presented to the EuroScience Association and convinced its representatives and the European Commission to award Katowice the ECS 2024 title. We first found out about the success of the Silesian Voivodeship in December 2021 when such news was officially announced by Prof. Michael Matlosz, the President of the EuroScience. So far, the ECS title has been awarded to such cities as Stockholm, Barcelona, Dublin, Copenhagen and Manchester. Eventually, not only has Katowice become the first Polish city awarded by the EuroScience but also the first one in Central and Eastern Europe. This proves the appreciation of the city’s efforts to transform from a post-industrial region into a strong scientific centre where modern technologies are thriving.



# Join the *Urban Tissue*

Awarding the title is barely the beginning of our journey. Rectors, members of local government and students tell us about what lies ahead.

## *Opportunities*

**Marcin Krupa,**  
PhD Eng., Mayor of  
Katowice:

The title of the European City of Science is not only a catchy phrase allowing us to promote the city and our universities, although it is important as well. The title indicates the intensification of actions for the benefit of our residents, students, and scientific employees. We want everyone—regardless of age, education, views and beliefs—to have a chance to touch and taste the world of science. We want science to no longer be the elite domain of a tiny group of people and become a common good available to the public.

**Kazimierz Karolczak,**  
Chair of the  
Metropolis GZM:

Awarding the title of the European City of Science to Katowice is an opportunity to attract and keep in Silesia the most talented students. It is of a tremendous significance for our region, in which the transformation has been lasting nearly continuously for over 20 years. Heavy industries such as mining and smelting are already giving way to new technologies. We want to create an economy based on knowledge and we have a great aptitude to do so. Within the Metropolis GZM area, we have 24 public and non-public universities educating 89,000 students. Speaking more vividly, today's Metropolis has more students than miners.

The healthcare, logistics, IT and automotive industries are rapidly developing here. We create new and well-paid workplaces; it is therefore important our universities provide well-qualified staff.

**Jakub Chęstowski,**  
Marshal of the Silesian  
Voivodeship:

The title of the European City of Science is an opportunity to strengthen the great potential of our university, and stimulate the impulses that will show new development perspectives. It is also an opportunity to promote our universities and region in Europe and the world. We are facing great challenges. Those connected with the transformation of the region, changing its character and deviating from the stereotype that the Silesian Voivodeship is associated with nothing else but heavy industry. Silesia has always been and remains a place of great opportunities and enormous capacities. I am convinced that by honouring

Katowice with the title of the European City of Science, the potential of universities as well as research and educational capabilities will increase, and consequently its recognition and prestige. I believe that in the nearest future, Katowice has the chance to become an ideopolis – a city generating new ideas that is located in the heart of the learning region.

**Anna Budzanowska,**  
PhD, European City  
of Science 2024  
Champion:

The European Commission experts pay attention to the fact that the Polish system of science and higher education is characterised by large fragmentation. It often happens that many narrowly profiled institutions operate next to each other within one city; it is not favourable as it hinders setting up large centres of excellence, and thus the recognition of Polish science abroad is unsatisfactory. In regions, it translates into strong internal competition in regard to collecting resources for research and investments as well as rivalry for the best students and employees. Experience shows that resources for higher education institutions, both national and European, are highly competitive whereas difficult to access and insufficient for dispersed centres. Consequently, only a fraction of research leads to ground-breaking innovations. Finally, fragmentation of the higher education system is an obstacle to the development of interinstitutional collaboration and therefore does not allow using the full potential of universities. I hope that the ECS will be a momentum for the consortium that contributes to increasing the academic potential of Silesia and will benefit not only scientists but also students, entrepreneurs, and residents.

Prof.  
**Ryszard Koziołek,**  
Rector of the University  
of Silesia, Vice-Chair of  
the Conference of the  
Rectors of the Polish  
Universities, European  
City of Science 2024  
Champion:

What the Silesian and Polish science need the most, is to permanently join it to the scientific circulation in Europe and the world. It is already happening; however, thanks to the ECS title along with numerous events and projects planned for 2024, Silesian science integration with European science will pick up the pace. I hope that after 2024, we will be a regular and significant partner for many science centres in Europe.

For centuries, the region has been known for applied science, i.e. heavy and mining industry. →

Currently, it undergoes a transformation. We, the Silesian universities, want to be an important tool of this transformation. Moreover, we want science and advanced education to become a new industry in the region. Science and knowledge are measures increasing the society's resistance to crises and unexpected events, peculiar insurance for the future of the region.

For now, the actions may not be visible outside but do believe me, we do not lack ideas and drive in completing our goals.

In my view, the most important thing is to realise how big of a chance we have received. We as Silesians and we as Poland. Katowice is the first academic centre in our part of Europe to be honoured with this prestigious title. According to the first analyses and estimations, our project can be deemed one of the most ambitious ones. It is a great challenge.

## First *Outcomes*

Prof. **Władysław Szymański**,  
Rector of Karol Szymanowski Academy of Music in Katowice:

The ECS title may be an impulse to develop the sphere of scientific research and education and to influence the society. Collaboration between universities of the region will gain better dynamics, which will translate into new standards in quality of life, new implementations, spaces and opportunities for intellectual and cultural development. It is important that universities start joint actions not only within bilateral contacts but also on the common surface for all units in the region. It results in new initiatives and ideas that may be completed thanks to the unique circumstances given by the title of the European City of Science.

Prof. Eng.  
**Celina M. Olszak**,  
Rector of the University of Economics in Katowice, Chair of the Regional Conference of Rectors of Academic Schools:

Although little time has passed since awarding the ECS title, we may already talk about certain benefits it brings. The very preparations, i.e. applying to the chamber granting this title, required the seven universities creating the Consortium to unite in action, develop a common vision of developing science in the city, propose concepts of modern campuses, and manage and restore many urban spaces (e.g. the area along the Rawa). This time showed that together we can do more and better. I believe that all the projects and concepts we included in our ambitious project can be completed. Naturally, we will need the help and support of the city, region, and country authorities. It is the first project of this kind in Poland. We assume that science is to be more tangible and visible, it should simply be closer to the people. Investing in science should be identified with investment in people to improve their comfort of life and work. During the pandemic, we realised that had it not been for science and strong research centres, the vaccine against COVID-19 would not have been discovered as quickly.

Many examples can be given (e.g. Silicon Valley in the USA) to prove that investing in science and research centres is profitable and brings measurable benefits. Science centres create a unique climate and are a magnet for entrepreneurs; they generate new jobs and attract talented people, academic staff and experts in various business branches.

## For *All* Inhabitants

**Marcin Krupa**,  
PhD Eng.:

It is the only opportunity of its kind to become part of the most prestigious scientific and technological event in the world. The idea is to develop solutions affecting the lives of everyone of us – both students and region inhabitants. A well-known saying goes "nothing about us without us". The inhabitants and students know best what they need to change the space where they operate for better. This is why it is so important for them to become part of these processes. Together we can develop the best solutions. However, it is worth getting involved in these actions for one more reason – to get inspired and see that the world of science is not only about academic walls and complex patterns. Because science is everything that surrounds us.

Prof.  
**Grzegorz Juras**,  
Rector of Jerzy Kukuczka Academy of Physical Education in Katowice:

Awarding the title of the European City of Science Katowice 2024 might have, or at least I believe it might have a permanent impact on the development of Silesian universities. I am convinced that it will also become an element of building the prestige of Polish higher education and science. I hope it will change the positioning of our activity in Europe, and therefore tightening collaboration with other significant academic centres and finding new partners. I count on a rapid increase in the number of foreign students. However, let's begin with the fact that I already see the first results of the combined efforts of our universities.

Prof.  
**Grzegorz Hańderek**,  
Rector of the Academy of Fine Arts in Katowice:

We have to build trust toward science – it is crucial in these uncertain times. I deeply believe that we witness the process of transformation that will substantially change the image of this region as it was during the Industrial Revolution. However, it will not be possible without the residents' involvement. By building the intellectual capital of the region, we have an impact on the image of Silesia in the country and Europe.

## The Most *Important* Tasks

Prof.  
**Tomasz Szczepański,**  
MD, DSc, Rector of the  
Medical University  
of Silesia in Katowice:

It is our common goal to make ECS actions the scientific and economic glue connecting residents and students. It is about specific solutions serving our regional community. The increase in scientific activity will translate into regional development in each aspect.

Prof.  
**Ryszard Koziołek:**

The most important task is to design and complete as many permanent effects of this amazing event as possible so that they can forever remain in the scientific scenery of the region in the form of partner institutions, programmes and relations.

Prof. Eng.  
**Arkadiusz Mężyk,**  
Rector of the  
Silesian University of  
Technology, Chair of  
the Conference of  
Rectors of Academic  
Schools in Poland:

It is mostly an investment for a better tomorrow and the development of the entire region as well as environmental and climate protection. It is a way to improve education and the quality of our life. Such transformations will contribute to improving the quality of life of the elderly as well. It is a process of building a resident-friendly place for work, life, and leisure.

Prof.  
**Grzegorz Hańderek:**

I believe that the transformation of Silesia may be—and should be—a key moment that will allow realising where the real “natural resources” of the region lie, especially that the presence of science in this place sprouts from its complex nature and history.

**Katarzyna  
Szałabska-Rapała,**  
PhD student of the  
Doctoral School of the  
Medical University of  
Silesia in Katowice:

The development of science in Katowice is very important due to the exploitative, industrial character of the region. The activities from the past destroyed its natural environment and worsened the health of many generations. It is necessary to have a highly specialised and state-of-the-art research infrastructure to encourage outstanding world scientists to carry out research and scientific works in the city. The award for Katowice will allow for increasing the city's recognition in the international area and therefore attract the brightest and most talented youth to study at Katowice universities and lift the prestige of graduating from a university in the European City of Science.

Prof. Eng.  
**Arkadiusz Mężyk:**

We should get the most out of this opportunity to invest in the broadly-understood science, especially through creating world cutting-edge research and receiving funds, not only within the ECS. In this aspect, carrying out scientific, science communication and educational activities is of key importance. In its strategy for the development of a research university, the Silesian University of Technology set the goal for particular integration of science around the priority research areas.

**Tomasz Janocha,**  
Chair of the Student  
Government  
of the University of  
Silesia in Katowice:

The most important task for Silesian universities is to stimulate the community to act. Science, which is becoming the new industry of Silesia, has to be present enough in the public space so the residents of the region and Poland along with entrepreneurs will see its strength. It is crucial to awaken the urge to create, make, do, teach, and learn in employees and students. Silesia already has great potential; right now, we have to use it well.

Prof.  
**Tomasz Szczepański,**  
MD, DSc:

Let's make the most out of this time. The most important task related to the ECS title is strengthening the research infrastructure and scientific potential that are to serve the development of scientific collaboration between universities.

**Jakub Kubiczek,**  
PhD student  
of the University  
of Economics:

Taking part in the ECS is a one-of-a-kind experience. Being part of the international audience during the ceremony of conferring the ECS title, I could already feel like a citizen of the world. The commitment to actions related to the ECS will allow for making new friends, getting to know the backstage of the scientific community, and above all having fun as *gaudium in litteris est* – “the joy lies in learning”.

Prof.  
**Władysław Szymański:**

Science centres create the image of the region. They are places for creating new research and cultural initiatives. The results of works carried out at universities translate into the prestige of a centre and improvement of daily life of residents. We expect the title of the ECS to result in a greater interest in candidates to study at Upper Silesia universities and later take up the work in the region and act for the sake of its development.

# Building the *City of Science*

What if we planned the part of the city where the universities operate from the scratch? As a space where knowledge, culture and joint actions of inhabitants for the constant improvement of life will be the fundamental rule. What if we arranged a special space for cooperation and allowed the inhabitants to co-share and get involved in the actions carried out there? And what about planning these changes with the natural environment in mind, and design them in such a way that the nature suffers the least? What will the city look like if we listen to the actual needs of its inhabitants when thinking about its change, and then, using the scientific research method, we will ask them to design useful solutions together with us? The question of what the City of Science should look like is answered by the proposed concepts: the Science Network Centre, the Green Science Zone and the Rawa Laboratory.

## Joint Prototyping

The City of Science, like every city, must have its unique spaces, varied in its characteristics and intended use. They should intermingle and interact with one another, forming one harmonious structure, but mostly they should result from the inhabitants' needs. A good plan and even better designs are required to complete such goals.

However, the scientific method obliges us to create concepts and test them. The City of Science will be designed in the process of urban prototyping. This is the method that consists in designing specific solutions in cooperation with the invited individuals.

Prototyping in Katowice is the beginning of the implementation of the model responding to the mobility problems reported by inhabitants of the city centre, students and lecturers of the University of Silesia in the interviews conducted by the Metropolitan Prototyping School team.

At the end of September 2022, the process of prototyping the space along the Rawa boulevard was launched. We invited inhabitants, students, and university employees to work with us. Together we created solutions that are welcome by the city space users. All of this in order to reject the investment-mainly nature of planning changes, which was dominant before. If everything goes as planned, this way of thinking and acting will soon spread to the other districts, and maybe even become an example for other cities.

The following guidelines were taken into consideration during the first space prototyping along the Rawa boulevard:

- enhancing the recreational function of a section of ul. Bankowa between the Rectorate of the University of Silesia and the Faculty of Social Sciences,
- simulating the development of land and greenery in the space located between the Rawa Valley and the Faculty of Social Sciences, at a short section of ul. Pańki.

Prototyping indicated the path for the upcoming changes. It was not just another abstract discussion, but real action and verification of its outcomes in practice. Moreover, each person participating in the project had a chance to suggest space improvement based on their experience. The event was happening "here and now", so the participants of prototyping were able to see the effects of their operations immediately.

→ The City of Science will be *designed* in the process of *urban prototyping*

Thanks to the interviews and observations held on an ongoing basis, the organisers obtained invaluable knowledge how to arrange a place in line with the users' needs in the future.

### Network Science Centre

Modern science communication requires the involvement of recipients. Their contact with science should be comprehensive, widespread and, therefore, obvious. The Network Science Centre, unique on a global scale, will be the heart of an outstanding system combining the university resources shared with scientists and inhabitants.

Let us imagine a person who comes to Katowice after a longer or shorter period of absence. Suppose he or she arrives at the Rawa boulevard during the first stroll. What will they see? According to the assumptions of the Network Science Centre, it will be a scene reminiscent of the Silesian Science Festival KATOWICE (Rawa Edition!): an interesting exhibition in one place, scientists organising the observation of sun spots in another, somewhere else

a discussion on the future of the planet. The newcomer gets to an open-air painting project combined with teaching architectural styles, and moments later finds out that they may ask to analyse water from the tap in his new flat just a few steps farther. They may come back in the evening to watch the stars. Sounds interesting, right? A little science fiction, maybe. But in fact this vision is the most realistic, because this is what the concept of the Network Science Centre is based upon.

Contrary to typical science centres, a larger, more dynamic organism will be established in Katowice, in harmony with the current shape of the city. The foundation of the network centre will be the academic buildings belonging to seven universities forming the Academic Consortium, and ultimately in all their campus cities. The open network of academic infrastructure created in this way will connect "hard" science with the social and economical needs.

### Green Science Zone

The Green Science Zone is a project which is an example of the consolidating potential that has been previously hidden in the Consortium universities, as well as an example of the increasing capacities in obtaining investment funds. The concept of the Green Science Zone was developed jointly by the University of Silesia, the University of Economics, the Silesian University of Technology, the Metropolis GZM and the City of Katowice; it concerns the Rawa boulevards and their surrounding areas adjacent to the university. The concept includes plans for investment in the academic infrastructure and launch of new research and implementation functions oriented towards the problems of the Green Deal for Silesia. The heart of the zone will be the Rawa Valley



and the Rawa Laboratory, which will be used for research and integration of various initiatives.

If the project is successful and the funds for its implementation are obtained, the Green Science Zone will include: the Centre for Biotechnology and Biodiversity, the Centre for Economy Transformation, the Centre for Computational Technologies and Science, the Metrolab and the Silesian Interdisciplinary Centre for Chemistry.

The project of the Green Science Zone is expected to respond to the environmental challenges, e.g. by implementing the European Green Deal developed to put the European Union on the path of ecological transformation and implementing the concept of the New European

Bauhaus (NEB) based on three inseparable values, such as: sustainable development (from climate goals to circular economy, zero pollution and biodiversity), aesthetics (including the quality of experience and style) and integration (including diversity, equality, accessibility and affordability). The Green Science Zone may become the Katowice laboratory of the New European Bauhaus.

#### Laboratory in the Rawa Valley

The area at the Rawa section from the Market Square in Katowice to the University of Economics which, if sufficient funds are obtained, will be transformed into a river park for the academic communities, inhabitants and guests in the centre of Katowice. The river and its valley,

→ the contact  
with science  
should be  
*comprehensive,*  
complex and  
therefore  
*obvious*

restored to a condition closer to natural, will operate as a detention basin and open-air biochemical laboratory where scientific teams will conduct research and check the effectiveness of technologies reducing the pollution level. The Rawa Valley, as part of the Green Science Zone, will operate together with the Network Science Centre and the Rawa Laboratory, using the academic educational and popular science infrastructure.

The Rawa Laboratory is also an agreement on cooperation for the transformation of this part of the city, thanks to integrating urban planning and science, as well as self-government cooperation to restore the inhabitants' access to the river as a public good.



← Interdisciplinary exhibition *Temat: Rzeka* in the former seat of the Silesian Museum at ul. Korfantego in Katowice. In the picture: *Wiersza* by Paweł Szeibel and Joanna Zdzienicka Obątek, 2022

# Paths and Pillars of the *City of Science*

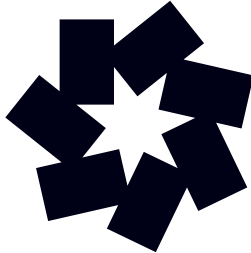
All scientific activities carried out in the City of Science will concern 5 thematic paths:

- Climate and environment
- Health and quality of life
- Industries of the future
- Social innovation
- Industrial and cultural heritage

The actions resulting from the implementation of the European City of Science title will be based on three pillars:

- All-year-round celebration of the European City of Science in 2024
- EuroScience Open Forum 2024 conference and research programmes
- Infrastructure of the City of Science

## Academic Consortium Katowice – City of Science in Figures

	7 consortium universities	59,251 students		747 degree programmes and majors		
	1,787 PhD students	15,055 graduates*				
	10,829 employees	238 research teams*		18 research centres*	38 European projects and research grants*	*as of 2021
	EUR 161 million for scientific activities*	86 educational projects*	8,794 publications*		412 domestic projects and research grants*	
		205 patents	23 investment projects*			

# So Far in the *City of Science*

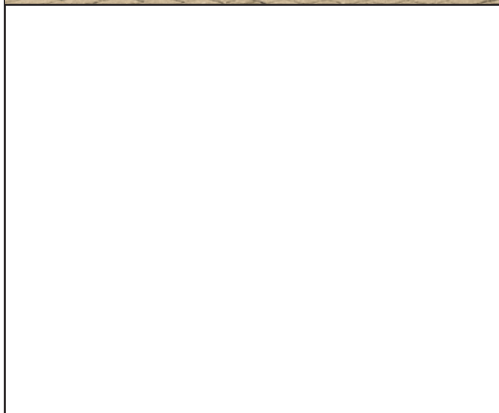
Common *initiatives* of the Academic Consortium Katowice – City of Science in the *Last Academic Year*



↑ “Children build the City of Science” event, photo: Tomek Grząślewicz

← Debate on the Science Stage during the WUF11, photo: Kasia Zaręba-Majcher

← Inauguration of T4EUWeek with the participation of the Student Song and Dance Ensemble “Katowice”, photo: Małgorzata Dymowska



← Marcin Krupa, PhD, Mayor of Katowice during the press conference announcing the concept of the Network Science Centre, photo: University of Silesia

→ Dağadana band during the “City of Science for Ukraine” concert, photo: Julia Agnieszka Szymala



← Ceremony of awarding the ECS title in Leiden, photo: EuroScience Open Forum 2022

↓ Ceremony of awarding the ECS title in Leiden, photo: EuroScience Open Forum 2022



↖ Speech by Prof. Michael Matloz during the ESOF2022 in Katowice, photo: Tomek Grząślewicz

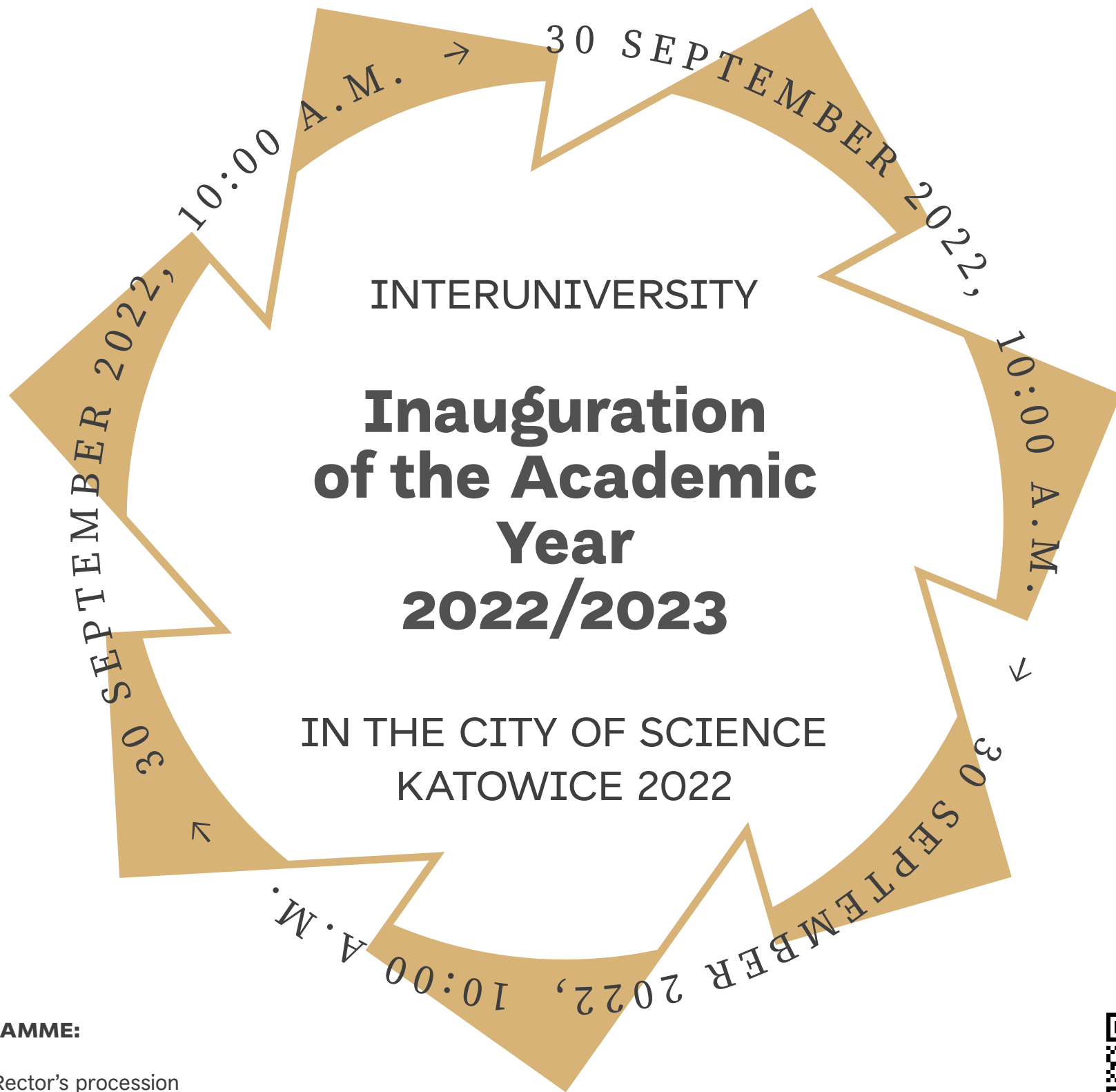
← Participants of the WUF11 during the discussion panel, photo: University of Silesia



30 September 2022  
10:00 a.m.

Katowice  
plac Wojciecha Kilara 1

NOSPR  
concert hall



**PROGRAMME:**

official Rector's procession  
matriculation and PhD students pledge ceremony  
inauguration lecture  
Polish Radio National Symphony Orchestra concert  
conducted by Antoni Wit



Detailed information:  
**miastonauki.pl**

	<b>ORGANISER</b> City of Katowice	<b>Academic Consortium Katowice – City of Science</b>						
<b>Partner</b>	<b>Patronage</b>	<b>Honorary partner</b>						