Please ASK!

Art Science Kick

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ARTE URBANA
collectif

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Art Science Kick

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MANUAL ON THE PROJECT METHODOLOGY

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Introduction

The following is a manual on the methodology developed and used during the implementation of the ***Please ASK! (Art Science Kick) - Kick-off new methodologies in performing arts and science collaboration*** project. The project was carried out by three independent cultural organisations: Arte Urbana Collectif from Sofia, Bulgaria, as the project leader, Dafa Puppet Theatre from Prague, Czech Republic, and Pro Progressione from Budapest, Hungary. This manual is intended for researchers, artists, and scientists interested in developing stage productions at the intersection of performing arts and science. It offers insights into the working methodology and provides practical guidance for future interdisciplinary collaborations.

SUMMER SCHOOL – BOROVETS, BULGARIA | 6-13 September 2024 © Dessislava Todorova

Project premises - conceptual foundation, aims, and context

Context and aims

Please ASK! sought to establish performing arts as a powerful tool to nourish a culture of societal engagement through science in Europe, as a means to inspire and empower citizens and organisations in addressing the need to find solutions to Europe's most pressing societal challenges. The changes that society has to make can only be achieved if constructed upon social processes such as mutual understanding, dialogue and collaboration.

During the COVID-19 crisis, it became evident how important it is for science to be understandable to society. Addressing environmental change had already shown this need, especially in light of the need to confront the skepticism and the denial of climate change and global warming. Science and technology are embedded in virtually every aspect of modern life today. As a result, people face an increasing need to integrate scientific information with their personal values and other considerations as they make important individual and societal decisions concerning their health, quality of life, how to address climate change, and many other issues. That is why science communication, the practice of informing on science-related topics and increasing the sense of wonder about scientific discoveries, is of huge importance today. Science communication may inform citizens and generate support for scientific research or science education, but also influence political and ethical thinking and public decision-making. Theatre and storytelling are extremely powerful to convey meaningful messages, raise critical thinking, and revive the public debate. In Please ASK! project we applied our artistic skills, experience and ideas to create stage productions and conduct educational activities in order to help society overcome the current and impending challenges.

Please ASK! also sought to provide artists with a new understanding of science, the people of science and the scientific method. This opens a whole new field of innovative artistic practices devoted to the connection between human existence and the world of science. This approach offers various audiences a fresh look at the state of the art of science and how it connects to them, to society, to our present and to our future. Please ASK! artists' involvement in science also had the virtuous benefits of dispelling false myths and stereotypes about science itself, and at the same time, it greatly expanded the field of action of the creatives involved in the project. Both science and art are human attempts to understand and describe the world around us. Their motivations and

goals are fundamentally the same - to understand the world around us, and then share that understanding. The scientific method is not reserved for those studying natural phenomena alone. Science is simply a method for gaining knowledge. It is a way of looking at the world and solving problems. Artists could only benefit from knowing the scientific method. It opens their eyes to fresh perspectives and upgrades their artistic toolbox.

Finally, Please ASK! aimed to design, test and disseminate successful state-of-the-art performing arts - science collaborations, so that the project legacy can be continued well beyond its duration.

Concept

Please ASK! innovated the creative models of the partners' organizations to produce art science theatre performances as an integral part of their artistic work. The project sought to share, develop, and implement practical knowledge and ideas for performing arts and science collaborations. The main beneficiaries of the project shared their existing experience and know-how in the domain and applied them in the creation of innovative stage productions. As an important initial step of the production process a summer school was organized where the three organizations (Arte Urbana Collectif, Dafa Puppet Theatre, Pro Progressione) taught each other their methodology in creating performing arts science productions. The selected artists and scientists from the three production teams took part in this summer school in order to both train them and learn from them. The summer school also served as a laboratory to try out different innovative cross-disciplinary approaches between performing arts and science.

Summer school – Borovets, Bulgaria | 6-13 September 2024 © Dessislava Todorova

After this initial stage of capacity building, the knowledge acquired was transferred into practice. Each partner organized in their respective country an artistic residency to create an art science theatre production. The result was the production of a total of three productions. This stage culminated in premieres of the productions in their respective countries.

The final stage of the project was the international showcase of the productions created during the project. It took place at the Theatre of Wonder - festival for art and science, in Sofia, in October 2025.

The premises of the methodology relied upon three different theatre aesthetics and forms for three main target groups, with each partner having previous experience and relevant capacities. Each production also had a different scientific topic to work on.

Arte Urbana Collectif had to create a blackbox theatre production for teenage and adult audiences. The scientific topic of the production had to be Astrobiology, the science that deals with life in space.

Dafa Puppet Theatre had to produce a puppet theatre show for children on the topic of Quantum Physics.

Pro Progressione had to make a site-specific outdoor immersive performance for families on the topic of Evolutionary Biology.

The creative process

The creative process started with a two-day meeting in Budapest in February 2024, where all the partners met. The agenda of the meeting regarding the creative process was to make an initial exchange of know-how and experience on art-science stage collaborations that the partners already had. The main participants in the meeting were the artistic directors of the productions – Dimitar Uzunov (Arte Urbana Collectif), Réka Deák (Dafa Puppet Theatre), and Viktor Szivák-Tóth (Pro Progressione), as well as some members of the partner organizations who already had experience in participating and producing such interdisciplinary stage collaborations – Andrea Brunello and Husam Abed – and the scientists who were to contribute: Vladimir Bozhilov, Aurél Gábris, and Lajos Rózsa. Very important outputs of the meeting were also the program, the content, and the period of the summer school, which would take place in September that year at the mountain resort of Borovets in Bulgaria and would last seven days.

Shortly after the meeting, each team decided what artists still needed to be incorporated in their production, and an open call was launched. In the case of Arte Urbana Collectif, it was decided to invite one more scientist, Prof. Milena Georgieva, who joined Dr. Vladimir Bozhilov in the creation. It was an interesting interdisciplinary scientific collaboration since Dr. Bozhilov is an astrophysicist and Prof. Georgieva is a molecular biologist. They both contributed to the astrobiological scientific topic.

WONDERSPACE FUTURE – BULGARIAN PERFORMANCE | Photo of the filming of pre-recorded videos. © Radostin Naydenov

Arte Urbana Collectif

The creative process of Arte Urbana's team started with a deep dive into the themes of astrobiology, gathering input from the two aforementioned scientists. It was a nice coincidence that in the very same academic year (2024-2025), Sofia University launched its brand new Master programme in Astrobiology, where both scientists – Prof. Georgieva and Dr. Bozhilov – were involved. To a certain extent, they shared with the creative team some of the classes they had been working on for that programme.

Arte Urbana Collectif creative team included Dimitar Uzunov (artistic director, co-author, actor), Andrea Brunello (co-author, creative consultant), Hristijana Stoimenova (actress, selected through the open call), Nikola Gruev – Kottarashky (musician & composer), Nikola Nalbantov (video-artist and costume designer), and Stephania Georgieva (choreographer, selected through the open call).

Together with the scientists, they all joined the summer laboratory-school at Borovets, where the initial dramaturgical concept was proposed. Later, the concept developed into a fully-fledged theatre play by Dimitar and Andrea, with the input of the scientists for the purely scientific part of the script – two three-minute pre-recorded video segments featuring them as fictional scientists contributing to a talk show.

The team worked in phases as the workflow was iterative: collect data, brainstorm ideas, devise, write, test with small audiences, and revise. This kept the process collaborative, playful, and grounded in both science and artistry. Audience considerations, particularly the fact that it should appeal to teenagers, shaped the structure – the team aimed for clarity, humor, and theme relevance. Science-fiction inspired dramaturgy, original music and sound design, video-projections, prerecorded videos, live-streaming, choreographies, elaborated light design, and futuristic costumes became key strategies to keep the show rich and engaging for the audience. The show was titled *Wonderspace Future*, and it emerged while writing the text and bears a sense of irony.

Super Hyper Ultra Mega Max Quantum Computer – CZECH PERFORMANCE | Photo from the rehearsal © Adriana Vancova

Dafa Puppet Theatre

Dafa Puppet Theatre's science theatre production was a unique exploration of quantum physics through the lens of puppet theatre. *Hyper Super Mega Max Quantum Computer* was created by a multinational, multidisciplinary team of artists and scientists. The process began in January 2024, when Aurél Gábris, Réka Deák, and Husam Abed initiated a creative inquiry into how children might intuitively grasp quantum logic through storytelling, puppetry, and interactive theatre. Their foundational principles emphasized thematic clarity, emotional engagement over didactic instruction, and narrative structures embedding core quantum concepts such as superposition and coherence.

Drawing inspiration from traditional tales, they explored how audience choice could shape the theatrical experience. Scenographical and dramaturgical development followed, led by Réka Deák, Veronika Traburová, and Jana Nunčič, who emphasized rhythm, transformation, and Czech puppetry motifs. Together, they crafted a scenographic language rooted in both metaphor and physical science. Aurél Gábris clarified the key quantum concept – coherence – which was translated into performance elements: synchronized children representing qubits, and the disruptive "wolf" symbolizing decoherence.

A December 2024 residency solidified the story: an authorial reinterpretation of *The Seven Little Goats* fairy tale, where harmony is disrupted by decoherence. By January 2025, a text-based structure had emerged, balancing scientific accuracy with playful theatricality. The premiere took place on 14 April, International Quantum Day.

Do you see this rose bush? When it begins to wilt, know that I'm in trouble. – HUNGARIAN PERFORMANCE | Field inspection during rehearsal. © Gábor F. Tóth

Pro Progressione

When composing the Pro Progressione artistic team, the organization had to take into account all the project premises – theme: evolutionary biology (1), format: outdoor, nature-close (2) and participatory (3) performance, target audience: families (4). The artistic director, Viktor Szivák-Tóth, was invited by the producing organization based on previous experiences with participatory and community theatre, drama pedagogy, and conventional theatre performances. He had to consider whether to call for peers with formal actor training education or to select team members with diverse educational backgrounds. Since it was the crucial part of the project, Viktor chose a dramaturg to consult with first. This dramaturg, Panka Paskuj, had been working with Pro Progressione for several years and had been involved in lots of similar international projects.

The performance budget limited the members of the team to four artists, and according to the experimental goals which the project aimed for, they decided to select theatre-makers who could

bring great artistic autonomy to the project. The selected artists had different artistic backgrounds: theatre in education, fairy tale pedagogy, circus dancing, eco-somatic activism. They kept a democratic creative process in which every member had the same rights in decision-making, so that they could develop a specific method that best fit the goals of the proposal.

Integrating scientific knowledge in the artistic process

Arte Urbana Collectif

Their artistic team collaborated closely with two scientists: Dr Vladimir Bozhilov, an astrophysicist from the Physics Department of Sofia University, and Prof. Milena Georgieva, a molecular biologist from the Bulgarian Academy of Sciences. Even before the summer school at Borovets, they provided the team with a wealth of material on astrobiology, evolutionary biology, and space ethics. Several online meetings were held, where the artistic team discussed with the scientists different aspects of astrobiology in order to find topics that had dramaturgical potential. Eventually, two such topics were chosen that were developed in the script – what changes in human physiology would take place while on a space station and especially when born and raised in space, and the Fermi Paradox: the apparent contradiction between the lack of evidence for extraterrestrial civilisations and the high probability of their existence, given the age and size of the universe. These online conversations that continued at Borovets were not just lectures but dialogues, shaping both the artistic team's understanding of the scientific topic and the narrative ideas.

After the first draft of the text was ready, the scientists proofread it, corrected it (for example, on quasar observations), and even joined rehearsals to comment on accuracy. It was decided to have them also in the theatre performance. Given their hectic schedules (both are very popular scientists and science communicators), 3-minute videos with each one of them were pre-recorded, rather than having them perform on stage, which would involve far more of their time. In the videos, they acted as characters, and the videos themselves were then integrated into the performance, allowing audiences to hear the science in the scientists' own words. This collaboration ensured that science was not merely illustrated but embodied and dramatised.

Dafa Puppet Theatre

The methodology of the puppet show grew out of practical principles defined by Réka Deák, Husam Abed, and Aurél Gábris (a quantum physicist, Deputy Head of the Department of Physics - ČVUT, Prague). During the first meetings, the team agreed to keep the focus narrow so the audience – primarily children – would not be overwhelmed. The goal was not conventional understanding but an emotional proximity to complex ideas, giving the audience the sense of drawing closer to quantum logic. Even for artists without scientific backgrounds in physics, this engagement was a challenge and a learning process.

Three key principles were established: to choose and stay within a narrow topic, to aim to evoke closeness, not full comprehension, and to use a clear narrative base (topos) as an anchor.

The team tried to avoid the 'science fiction trap' of presenting quantum physics like a collection of weird, made-up principles. Instead, they tried to balance the metaphorical scenic language with scientific accuracy, so that quantum physics would be believable not just within the world of the play, but in reality as well. Symbolic actions – such as assembling a "quantum computer" or contrasting coherence and chaos – embodied real scientific ideas. Decoherence was made tangible through rhythm: children moving in harmony like qubits, disrupted by the "wolf."

Three methodological insights crystallised: the story would collapse without science; allegory could not replace factual accuracy; and no scientific content could be misrepresented. Negotiations between artistic freedom and scientific truth created a productive tension, mirroring the very principles of quantum coherence that the performance sought to portray.

Pro Progressione

The artistic team worked together with a very knowledgeable evolutionary biologist, Lajos Rózsa, who, since the beginning of the process, had expressed great interest in the artistic process. Because of that, it was decided to involve him not only as an expert but as a co-creator. Since the team aimed to achieve a synthesis of the different artistic methodologies that the team members possess, every professional area was treated equally. In the first phase of the process, every member presented the field in which they were experts. Regarding evolutionary biology, the

scientist provided additional reading materials, podcasts, and video essays to help the team gain the necessary knowledge to understand the scientific topic. The scientist was present at every rehearsal, and the team adjusted both the scientific and the artistic parts of their work to one another. The artists were seeking artistic forms starting from scientific content, and vice versa; the scientist also shared associations and ideas emerging from their artistic practice. Evolutionary biology offered a wide range of possible topics to work on, and every artistic methodology that was used in the performance proved to be flexible enough to find an optimal solution. What really narrowed the focus was not so much the meeting point between science and art but the target audience that included children, teenagers, and adults as well.

Engaging with the target audience

Arte Urbana Collectif

The target audience of this production was teenagers and adults. We adapted artistically to this diversity by using multi-layered storytelling: a simple, clear, humorous narrative for younger viewers, with deeper scientific and philosophical layers for older ones. The production also included relatable topics such as social media influencers, space entrepreneurship, and TV-show aesthetics, which allowed youngsters to connect emotionally while adults reflected on the ethical questions of space colonization. In order to appeal to the teenage audiences, but also to the adult ones, the production used different artistic media: prerecorded videos, video generation, original sound and music design, live streaming, advanced light design, choreographies, elaborated futuristic costumes, as well as science-fiction themes.

Dafa Puppet Theatre

Young children were the primary audience, shaping every artistic decision – from the selection of a fairy tale and scenography to the treatment of scientific ideas. The dramaturgy relied on repetition and contrast: repetition established coherence, representing the stability of superpositioned quantum states, while contrast introduced rupture, reflecting decoherence and the collapse of possibilities.

Performances were tested across four age groups. The premiere brought together adults and very young children, while subsequent shows reached audiences aged 8 and 11-12. Teenagers proved the most challenging yet remained engaged, often responding vocally.

Educators responded enthusiastically. One physics teacher described the material as "absolutely wonderful, totally age-appropriate," but suggested that supplementary materials could enhance comprehension. The feedback confirmed that curiosity and engagement were successfully sparked, linking theatrical experience with conceptual insight through embodied learning and imaginative play.

Pro Progressione

Pro Progressione effectively engaged their target audience – families – through an innovative blend of participatory storytelling, engaging popular science information, and site-specific performance. Their approach centered on designing an immersive "happening" in a Budapest forest, where audiences would physically journey through the performance space, guided by a narrative drawn from Hungarian fairy tales such as *The Princes with the Golden Teeth*. Families were divided into two groups, mirroring the two brothers in the story, and experienced parallel paths before reuniting for a shared finale.

This participatory structure allowed adults and children to engage on different cognitive and emotional levels, with each age group given distinct interactive roles. The performance also integrated evolutionary biology themes – such as cooperation and adaptation – translated into playful and accessible audience activities. Lajos Rózsa, the scientist in the team, participated directly in the performances, providing experiential learning through guided exploration and short lectures.

Pro Progressione's emphasis on eco-somatic practice, circus techniques, puppet theatre, and gamification further deepened audience involvement, while limiting each event to 30-40 participants ensured intimacy and engagement. By combining fairy-tale psychology, environmental awareness, and embodied participation, the production successfully connected its scientific and artistic goals with the target family audience.

Premieres and audience encounters

Arte Urbana Collectif

The premiere was a major step in the process, filling a 250-seat theatre. It took place on April 10, 2025, commemorating the International Day of Human Space Flight, which would take place two days later. The performance received enthusiastic feedback from both teenagers and adults, with many staying to congratulate members of the team and discuss the work. Some viewers commented that the show discussed sex "too much," but for the team, this was a positive sign: it meant they touched on a real and necessary scientific issue - human reproduction in space. These themes were presented with humor and sensitivity, so even children enjoyed the show without discomfort. Post-show discussions confirmed that teenagers, in particular, appreciated the balance of science and playfulness. Some very young children responded more to the visual and physical elements, such as scenes where characters "fly". The production plans to bring larger groups of teenagers during the next performances to gather deeper feedback, since their responses would further help refine how to communicate complex science to such audiences. Overall, the premiere affirmed that science-infotainment theatre - mixing scientific information and entertainment - can spark curiosity and conversation across generations.

WONDERSPACE FUTURE – BULGARIAN PREMIERE | 10 April 2025 – Toplocentrala, Bulgaria
© Dessislava Todorova

Dafa Puppet Theatre

The premiere on April 14, 2025, International Quantum Day, marked the culmination of a year-long interdisciplinary collaboration. It drew a diverse audience of children, parents, teachers, and scientists. Early performances revealed how different age groups interacted with the show's layered meanings. Younger children responded primarily to color, rhythm, and puppet movement, while older audiences began to articulate the play's scientific metaphors. Teenagers were both the most vocal and the most critical, but their energy proved vital in testing the clarity of the concepts. Children spontaneously sang the closing song and repeated key scientific terms - "superposition" and "decoherence" - long after the curtain fell, demonstrating emotional and mnemonic engagement. Post-show discussions confirmed that the aim of evoking curiosity rather than comprehension had been fulfilled.

Improvisations by actors Mariana Čížková and Jakub Vaverka during rehearsals refined timing, humor, and spatial logic, ensuring accessibility without simplification. Educators praised the show as "age-appropriate and conceptually rich." Some suggested developing educational add-ons - teacher notes or interactive materials - to reinforce connections between theatre and quantum thinking. Overall, the first performances showed that the performance worked well, mixing puppetry and quantum computing is opening new ways for young audiences to learn through life-filled experiences.

Super Hyper Ultra Mega Max Quantum Computer – CZECH PREMIERE | 14 April, 2025 – Prague, Czech Republic, © Anthoniy Hristov

Pro Progressione

Since interactions were a crucial part of the performance, the team chose not to hold official audience encounters. Thanks to the fact that they could perform the show four times in a short, two-day period, the team had the chance to develop the performance from one run to the next. The improvements affected mainly the interactions and the instructions, which led the audience from

one phase to another. These verbal and non-verbal instructions were not just for giving practical information, but they were also used as tools to build the narrative. The level of the audience's involvement depended mainly on how effectively the performers could inspire the children's imagination. The adults were involved through their playful activity as they became peers in this fictitious game. The rhythm of the show, the walking speed through the forest, and the time spent at a given station were determined by the youngest participants. This did not cause any particular inner conflict in the audience, as it was very similar to the families' daily pace of life.

Do you see this rose bush? When it begins to wilt, know that I'm in trouble – HUNGARIAN PREMIERE 12-13 April, 2025 – Budapest, Hungary, © Gábor F. Tóth

Challenges and how we overcame them

Arte Urbana Collectif

The biggest challenge was balancing scientific accuracy with dramatic storytelling. Several times, the team had to discard ideas that were theatrically strong but scientifically incorrect. This was frustrating but necessary to maintain credibility. Another challenge was addressing a multi-age audience. It was solved by creating several narrative pathways, using different artistic media, and injecting a good amount of humor. Time constraints were another obstacle - a vast amount of scientific knowledge and complex contemporary topics were compressed into a performance just over an hour long (75 minutes) without overwhelming the audience. We achieved this by focusing on two scientific themes and, at the same time, creating three narrative lines. These strategies allowed us to keep the show scientifically robust, engaging, and inclusive.

Finally, there was the challenge of working in different languages as the two main co-authors were using English as it was their common language, but neither of them was a native speaker. As the production premiered in Bulgaria, Dimitar Uzunov took the leading role in translating the English text into Bulgarian and fine-tuning it.

Dafa Puppet Theatre

The primary challenge lay in balancing artistic freedom with scientific precision. On one side stood the puppeteers' playful improvisation with seven children puppets and materials; on the other, the physicist's insistence that "quantum-wise it must make sense". This tension became central to the creative methodology itself - a dialogue between stage invention and factual coherence. Interestingly, the debate over using three or seven puppets mirrored real quantum challenges, as seven qubits also represent a complex scientific case.

Another major decision was to privilege embodied and collective learning over technological spectacle. Visits to the Czech Technical University in Prague and observing technologies such as the Tokamak GOLEM (a small experimental nuclear fusion device used for research and education) revealed that real quantum technology, while fascinating, would not support accessible storytelling. Inspired by Liz Kolb's Triple E framework for purposeful technology use, the team concluded that puppetry - not advanced machinery - best served engagement, imagination, and participation.

Cross-cultural collaboration added complexity: Czech, Slovenian, and Romanian theatrical traditions carried differing assumptions about authorship and method. Maintaining coherence across these traditions required openness and trust. Ultimately, the project itself resembled a quantum system - multiple viewpoints interfering and harmonizing. Through negotiation and experimentation, coherence emerged not from consensus but from the dynamic interplay of art, science, and pedagogy.

Pro Progressione

The main challenge was how to adjust the four constraints, set out in the original proposal, to one another. Some of them could have been a starting point for another project; family audience, for example, is currently the focus of another research project. The team had enough knowledge about site-specific and participatory genres, but these could also have been just optional, since usually these are in a creative process derived from artistic decisions and not the starting point to which the concept itself must adjust. The scientific topic, evolutionary biology, is a large area to explore; it could have been enough to start with. Even narrowing the focus in this area was a great challenge in the planning phase. Finally, what really determined the work was the mixed-age audience and the site. The site offered the artistic team the routes they could walk with the audience, and this also structured the dramaturgy. The forms of interaction were outlined by the target audience, and finally, the scientific part needed to be the most flexible: the team chose not to narrow the focus to build up a concept on it, but to draft a dramaturgy and identify the scientific topics which best fit it.

THEATRE OF WONDER – Art & Science Festival | 10-12 October, 2025 – Sofia, Bulgaria © Anthoniy Hristov

Analysis and recommendations

Please ASK! project confirmed that collaboration between artists and scientists can lead to powerful, multilayered performances that educate while entertaining. Across all teams, the process was defined by deep research, experimentation, and iterative testing of ideas. The integration of scientists in the creative process played a crucial role in shaping the artistic content, ensuring scientific accuracy, and enriching the conceptual depth of each production. Scientists were not merely consultants but active collaborators whose knowledge inspired narrative, dramaturgy, and sometimes even the interaction design.

A key strength of the project was its diversity of artistic approaches: site-specific immersive performance, puppet theatre, and multimedia stage works. These formats opened science to audiences through embodied experience rather than didactic explanation. Pro Progressione's walking outdoor performance used evolutionary biology as both theme and metaphor, transforming forest spaces into participatory learning environments. Arte Urbana Collectif's team in Sofia used

mockumentary style and multimedia storytelling to dramatise themes from astrobiology, while Dafa Theatre's group explored puppetry to visualise concepts from quantum physics. This variety successfully highlighted how complex scientific content can be artistically translated in ways that are more effective and engaging for audiences through dramaturgical narrative, play, interaction, humour, sensory experience, and emotional engagement rather than in explanatory formats such as lectures.

The process also revealed challenges. Balancing scientific precision with theatrical imagination was demanding - often scenes had to be discarded for scientific inaccuracy, demonstrating the tension between creative freedom and factual correctness. The interdisciplinary collaboration also required new communication skills, as artists and scientists had to learn each other's languages and working rhythms. Time management and dramaturgical coherence were recurring difficulties, particularly when multiple methodologies or experts were involved. It is also important to note that sometimes the constraints, such as working on a given scientific topic and for a concrete audience, could actually be very creatively stimulating, as the project revealed.

Lessons learned during the implementation of the project include the importance of early and continuous collaboration between artists and scientists, clarity in defining roles, and flexibility in integrating scientific input from both sides. The process also showed that failure and experimentation are vital parts of artistic research, as they are in the scientific research, valuable learning experiences rather than setbacks.

Recommendations for future collaborations would be:

- Begin joint research phases earlier to allow time for mutual understanding. The scientific input must be integrated early, so dramaturgy grows organically from it rather than being an afterthought.
- Involve scientists in creative experimentation, not only as advisors. Scientists appreciated being treated as co-creators rather than consultants, which made them more invested. In the project, we worked with scientists who were very open and, in some cases, very experienced in science communication. We recommend engaging with scientists with a similar profile, as they are highly prone to experimentation and innovation.

- Develop workshops or labs for artists and scientists to co-create outside production pressure. This type of interdisciplinary creative work requires experimentation and room for failure.
- Allocate time for iterative testing with target audiences, especially young ones, as their reactions are unpredictable but highly instructive.

Finally, documenting the process - videos, feedback sessions, methodology notes - proved essential for reflection and improvement. Future projects should continue building bridges between scientists and scientific institutions and creative practitioners, as this exchange enriches both fields - contributes to better science communication and provides ideas and makes artists responsible for science.

Overall, Please ASK! project stands as a model of how cross-disciplinary creation can make science tangible, imaginative, and emotionally resonant.

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