



S+T+ARTS



REGIONAL S+T+ARTS CENTERS

REPAIRING THE PRESENT CHALLENGES

INTERACTIVE PRODUCTIVE LANDSCAPES

REPAIRING THE PRESENT

Challenge No. 1 by Snowball & Gluon



PROBLEM STATEMENT

The world is in constant flux, and so are the natural environment & open spaces we are living in. How might digital technologies support citizens, policymakers, entrepreneurs & researchers in their ambition to create more balanced relations between nature & humans in the region of South-West Flanders?

KEYWORDS

Open Space, Heterotopia, Biodiversity &/or Water management (quantity & quality), Activism & community building, Digital technologies (IoT, AI, VR / AR, blockchain)

JURY DAY

Jury day will be held in-person on 17th January 2022.

ADDITIONAL INFORMATION

[Leiedal](#)

[Policy plan Leiedal 2020 – 2025 \(Dutch only\)](#)

[STARTS Prize – Ciutat Vella's Land Use Plan](#)

Challenge informed by the GD6:

Preserving and protecting biodiversity



SNOWBALL

GL
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Research
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S+T+ARTS



CHALLENGE CONTEXT

The open space is globally under threat. Every region is looking for the best solutions to tackle its particular, local challenges. The region of South West Flanders is marked by a network of blue & green veins, that carry specific challenges in the development of more sustainable agriculture, biodiversity, sustainable water management, the creation of multiple uses of open space and original approaches for re-forestation.

In line with the European Green Deal, the region aspires to a sustainable transition towards more balanced relations between nature & humans.

The inter-municipal organisation Leiedal offers different opportunities and spots within the blue & green network in the South-West Flanders, as a testing ground for artists or artist collectives to deepen, broaden, imagine and/or accelerate this transition.

The artist is invited to select a particular opportunity for a more balanced relationship between nature & humans and will be involved in the selection of relevant sites. The aim of the fellowship is to develop an art project that raises awareness of the importance of the quality of the open space, supported by digital prototypes that offer concrete solutions for the challenge. The artist will be supported by tech experts in the fields of AI, IoT, blockchain, big data and visualisation technologies such as VR and AR. Citizen involvement and scalability of the outcome are important success factors for this project.

FELLOWSHIP CHARACTERISTICS

During the fellowship, the artist will be supported by a Local Expert Group composed of local practitioners from the field of cleantech, data management, urban planning, blockchain, policy, energy management, AI, virtual & augmented reality and education. Our fellowship partner is the inter-municipal organization Leiedal, whose core activities focus on the dynamic and durable development of South West Flanders as an attractive area for work, life and leisure. The artist will get access to sites (buildings and/or open spaces) in the region. Following an introduction and research visit, the artist and the Local Expert Group will select one or more sites/areas suited to the implementation of the proposal.

Through the hosting institutions' network, the artist will get access to local experts/companies/research institutions in the field of AI, IoT, blockchain, big data and visualisation technologies such as VR and AR. Specific expertise required by the artist for the implementation of the project will be evaluated by the Local Expert Group.

This Fellowship is highly collaborative, aimed at strengthening the quality of the open space in the region. It involves local target groups (entrepreneurs, youngsters, policymakers and researchers) and strives to develop a project with the potential of duplicability (tools, methods & outcome) to other sites and (European) regions.

The artist is required to travel to the region to attend meetings and events/conduct field research at least 4-6 times during the fellowship.

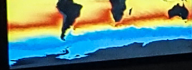


Photo Credits: Ars Electronica, Martin Hieslmair

CIRCULAR FUTURES

REPAIRING THE PRESENT

Challenge No. 2 by Ars Electronica

PROBLEM STATEMENT

Economic added value alone is no longer enough to meet the innovation objectives of the 21st century. Climate change, resource scarcity and biodiversity loss require a drastic rethinking of our current production and consumption processes. Therefore, everyone's contribution and cooperation are necessary: individuals together with public institutions, the research field, industry and policymakers.

KEYWORDS

Circular economy, Citizen and multi-stakeholder involvement process, Art-driven participation & innovation, Resource & energy efficiency, Future of manufacturing

JURY DAY

Jury day will be held digitally on 14th January 2022.

ADDITIONAL INFORMATION

[LIT Factory](#)

[Circular Economy Platform Austria](#)

[Plastic Cluster](#)

[Greiner](#)

Challenge informed by the GD3:

Industrial strategy for a clean & circular economy

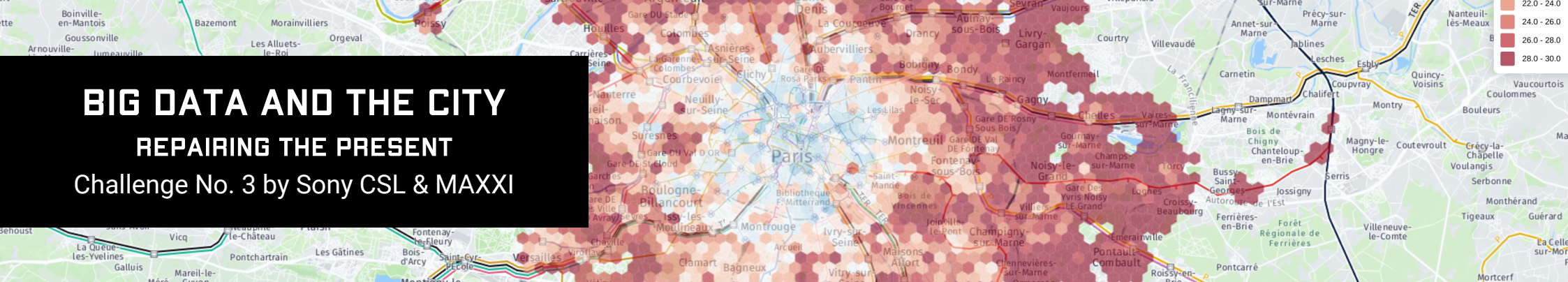
CHALLENGE CONTEXT

Circular Futures addresses the urgency of innovative & arts-driven solutions and the need for growing social commitment to deal with our energy & resource crisis. Resources are not available in unlimited supply and their use is harmful to our planet's climate. We now know that the way we design, engineer, manufacture, distribute, repair & recycle our materials is significantly impacting our climate goals. To address that we must take into account the materials used, as well as water and energy reduction throughout all stages of production & consumption. The EU Green Deal introduced a clean & circular economy as a key driver on the roadmap to sustainable economies. Implementing a circular economy in the EU could create 180, 000 extra jobs by 2030 and 2 million jobs in the longer term. But to adopt circular economies throughout Europe's regions, we need stronger participation & commitment from everyone, from the civil society, companies, to research organizations and the public sector.

Upper Austria and the region around Linz, like no other region in Europe, condenses the entire value chain of the plastics industry. This determined the industry, research institutes and decision-makers to commit to creating more sustainable and environmentally friendly systems of plastic production and establish cross-industry research & learning networks. Fellowship candidates will have the opportunity to work with scientists from Johannes Kepler University in research areas of polymer materials & technologies, Greiner - one of the world's leading suppliers of plastics and foam solutions - as well as the climate and innovation offices of the City of Linz.

FELLOWSHIP CHARACTERISTICS

The fellowship will provide the opportunity to set a stepping stone towards circularity! Selected artists will have the chance to work with material manufacturers (eg. plastics producers) and recycling companies in Upper Austria to address necessary changes and develop new ideas. This ecosystem will be a unique setting allowing the artists to get access to infrastructure, expertise and networks relevant for their practice, as well as the (open-ended) outcome of the fellowship. We aim to involve multiple stakeholders in the process, from citizens and the public sector to research and industry actors, to identify the overall needs and increase collective commitment. Selected artists will have the opportunity to lead co-ideation & participatory events (such as workshops, roundtables, etc.) with the support of Ars Electronica. Artists will be expected to engage in a multi-stakeholder engagement process and produce a prototype as an output from this process as well as deliver a methodology report of the co-creation and circular economy process. The fellowship is hosted by Ars Electronica in Linz Austria. Participants are expected to be present in Linz regularly and should include the travel expenses in the budget plans.



BIG DATA AND THE CITY

REPAIRING THE PRESENT

Challenge No. 3 by Sony CSL & MAXXI

PROBLEM STATEMENT

Mobility is the circulatory system that makes cities alive, productive, and welcoming. The present challenge will explore new ways of experiencing and navigating the city and aims to conceive new scenarios for post-pandemic sustainable cities by exploiting the disruptive potential of big data and ICT technologies for the improvement of citizens' living conditions.

KEYWORDS

Smart Mobility, Scenarios, Big Data, AI

JURY DAY

Jury day will be held digitally on 14th January 2022.

Challenge informed by the GD4:
Sustainable and smart mobility

CHALLENGE CONTEXT

How can both scientists and artists improve modern urban environments and create a sustainable living, facilitating innovative practices for common rules, sustainability, and ecological transition through technological innovation?

Modern urban environments are complex techno-social systems made by many smaller interacting components or larger entities that we call "cities". New ITC technologies allow for unprecedented and pervasive monitoring of many of these components. Nowadays, many technologies are available to monitor and optimise daily citizen movements: GPS tracks from mobile phones, smart cameras, and traffic sensors. Moreover, new ways of moving are emerging: e.g., bike-sharing, scooters, multimodal transports. The ensemble of all these innovations is changing our urban experience either in a positive, i.e. faster and greener commuting, or negative way, i.e. privacy issues, loss of the ability to navigate the city autonomously. The challenge addresses the impact of future urban mobility on everyday life, looking for new perspectives that both citizens and experts in the field are not yet aware of. In doing this, the challenge will explore new scenarios for urban mobility exploiting current or foreseeable technologies to improve urban living conditions.

FELLOWSHIP CHARACTERISTICS

The successful candidate/s will have the unique residency opportunity at MAXXI Museum in Rome, constantly interacting with local experts and researchers from Sony CSL at "Enrico Fermi" research centre. The aim of this collaboration will be to define an innovative artwork on the verge of science and art.

The candidate will exploit all technological and scientific know-how of experts to better understand the functioning, challenges, and risks of Big Data applications for Smart-Mobility. We expect a continuous interaction in the definition and development of the artwork, trying to involve all the different actors in each stage of its development.

The final artwork/artistic prototype will merge the artistic view with new technologies (AI, Machine Learning, Big Data). This process will lead to new meaningful representations of current urban mobility and imagine possible future scenarios, helping transform the cities into a more economically sustainable environment. At each development stage, the installation will receive feedback from relevant local actors and stakeholders through a series of dedicated workshops. The final result will be disseminated through a series of meetings with the public and stakeholders.



INHABITANT-ADAPTIVE FUTURE CITY

REPAIRING THE PRESENT

Challenge No. 4 by In4Art

PROBLEM STATEMENT

Any city is a collection of its inhabitants, humans, and non-humans. Yet one of the most difficult things to do is involve those city's inhabitants in shaping its future. To create future-proof cities, it is crucial that they become adaptive to those who populate them. How can new modes of collectivity through digital and physical interconnectedness bring a city and its inhabitants closer together?

KEYWORDS

Participation, Ownership, Agency, Diversity, Involvement, (Virtual) Communities, Adaptability, Digital mobility, Co-existence, Adaptability, Interventions, Liveability, Resilience

JURY DAY

Jury day will be held in-person on 17th January 2022 @YES!Delft. The selected artist will have a kick-off on January 18th @Witteveen +Bos in the Hague.

ADDITIONAL INFORMATION

[Environmental vision for The Hague \(Use Case\)](#)

[Digital solutions and available tools at Witteveen+Bos Hague, city of peace and justice](#)

Challenge informed by the GD4:
Sustainable and smart mobility

CHALLENGE CONTEXT

The physical public spaces in a city are designed for a period of 20-50 years, the inhabitants and their needs develop and change much quicker. In developing the environmental vision 2040 for The Hague, the involvement and participation of all inhabitants is both a need and a challenge. There is an opportunity to rethink the way the city could shape its populations and the agency of humans and non-humans in that process.

This Repairing the Present Fellowship invites artists to come with proposals on how we could strengthen the adaptability of the city of The Hague by using digital technologies to rethink the role of the actors involved. There is an urgency to re-examine our societal relationships against the background of technological acceleration in order to realize new collective futures where feedback loops between the digital and the physical ignite transformation.

The goal is to develop an artistic prototype that could pave the way towards a future in which the influence of inhabitants of the city (this could include all living matter) on the liveability and adaptability of the public environment has increased.

FELLOWSHIP CHARACTERISTICS

The fellowship partners will be: Dutch engineering firm Witteveen+Bos, responsible for the environmental impact studies that support the 2040 environmental vision for The Hague, Europe's leading technology incubator YES!Delft and Regional S+T+ARTS Center In4Art. The artist will be granted access to the partners' venues, expertise and technologies upon need and request. The LEG consists of 14 high-level experts from industry, science, public bodies, and the arts and will form the network the artist has access to. We search for proposals that address real-time digital technology, including but not limited to the use of immersive technologies, geofencing, gamification, sovereign identity and any other IoT or AI technologies. The artist is expected to travel to the region to attend workshops, activities, or events or to conduct field research at least 4 times during the fellowship. We search for proposals that address real-time digital technology, including but not limited to the use of immersive technologies, blockchain, gamification, and any other IoT or AI technologies.

The artist is expected to deliver a presentable outcome in the form of a prototype which will be included in the final exhibition at MAXXI Rome and the innovation spill-over exhibition at ZKM Karlsruhe. Moreover, the artist is expected to produce and deliver a collectable outcome of the fellowship with an edition of at least 2 by the end of 2022 which will be included in the In4Art collection and possibly the Witteveen+Bos art collection.

NEW MODES OF MOBILITY

REPAIRING THE PRESENT

Challenge No. 5 by STATE



Photo Credits: Veronika Hubert Natter

PROBLEM STATEMENT

The different possibilities and preferences of transport of Berlin's citizens and the use of public urban space are often in conflict with each other. This presents a challenge for the transformation towards a sustainable future of urban mobility in the city. How can we create more awareness and engage the public in a collaborative and inclusive process?

KEYWORDS

Mobility, Urban Future, Inclusion, Public Participation, Awareness, Public Space

JURY DAY

Jury day will be held digitally on 17th January 2022.

ADDITIONAL INFORMATION

Find more information about the project and interviews with the local experts following [this link](#).

Challenge informed by the GD4:
Sustainable and smart mobility

CHALLENGE CONTEXT

Berlin is a very diverse and multicultural city, which brings with it a social complexity that is reflected in a variety of different political views, opinions and lifestyles. To find common grounds for the ongoing transition towards a more sustainable future of urban mobility in Berlin is often difficult. We see, amongst others, challenges arising related to inequalities regarding the choice of and access to different modes of transport; conflicts between personal needs and preferences, and shared responsibility for common urban space; the fear of change and resistance to the use of more sustainable transport modes - whether new or old.

One of the goals of the European Green Deal is sustainable and smart mobility. To reach that goal we have to engage the public in an open dialogue, challenge our routines and provide education on alternative and sustainable modes of transport.

Acting as a catalyst for change, this project aims to open up new spaces for dialogue and reflection on the multi-faceted topic of urban mobility in Berlin and create a new sense of shared ownership for public space as well as openness, and responsibility in the process of transforming Berlin's mobility sector. By means of a collaborative artistic journey that includes multiple stakeholders across all sectors, citizens of Berlin should be encouraged to rethink public space together.

FELLOWSHIP CHARACTERISTICS

The fellowship is organised as a mission-driven journey through the topic of mobility in Berlin in close exchange with a diverse group of local experts from all sectors. Through the local experts and connected partner institutions, such as the Deutsches Zentrum für Luft- und Raumfahrt e. V. and Technical University Berlin, the selected artist will get access to rich data about mobility in Berlin, in-depth knowledge about local contexts (including spatial, social and political aspects) and a variety of technologies to measure and evaluate mobility behaviour. In particular, strong expertise in studying psychological and behavioural aspects (e.g. Real-time physiological data streaming and visualization) is offered. Concrete terms of access to the technologies will be clarified in person with the local experts after the start of the fellowship.

During the fellowship, the artist is expected to engage with the general public as well as relevant stakeholders in a strongly collaborative process and show high openness as well as an in-depth and critical assessment of the topic.

The artist is expected to travel to the region to attend meetings and events or to conduct field research at least 4 times during the fellowship.

The artist is expected to deliver a presentable prototype or an artwork that will be included in the final exhibition at MAXXI Rome and at ZKM Karlsruhe.

SMART AGRICULTURE

REPAIRING THE PRESENT Challenge No. 6 by Onassis Stegi

Photo credits: Dimitris Parthimos, Geometries (2018), Onassis Stegi

PROBLEM STATEMENT

Farmers comprise 12% of Greece's workforce but produce 3% of the country's GDP. How can technology bridge agriculture with the economic & social prosperity of the farmers themselves, their local communities and the citizens of urban areas while at the same time making use of traditional forms of knowledge that take the specific ecosystems and cultivars into account?

KEYWORDS

Sustainability as a measure of success, Regenerative agriculture, Health & food security, Decentralization, Empowerment of farmers

JURY DAY

Jury day will be held digitally between 13-19 January 2022 (TBC).

Challenge informed by the GD5:
Greening the Common Agricultural Policy /
Farm to Fork Strategy

CHALLENGE CONTEXT

Productivity and efficiency in agriculture is a necessary condition for economic development in the periphery but also to ensure food security for the generations to come. Agriculture has one of the biggest environmental footprints, while it is also among the first to be impacted due to the climate crisis. The cost of modernizing production lines along with low productivity makes it difficult for smaller farmers to survive. This can lead to increasing inequalities in land ownership and new forms of exclusion. The need to strengthen the food system's resilience & sustainability is more urgent than ever. Technology is a catalyst for the transformation of agriculture, the prosperity of the people involved, the protection, restoration & preservation of natural habitats and an important tool that can establish farming's environmental footprint as an integral measure of success.

We want to engage the general public, policymakers & the scientific community with the topic of the accessibility and relevance of technological advancements and their potential positive impact on the environment and social and economic prosperity. This could lead to a fair, participatory & sustainable system for the agriculture sector resulting in rural development & prosperity. What would this future look like?

FELLOWSHIP CHARACTERISTICS

We are looking for an artist who can produce a compelling artwork at the intersection of technology, science and art that brings out the tensions and also the urgency of action related to the transformation of agricultural practice, which in the end is the transformation of our relationship to our natural environment.

We expect an artistic project in a form/medium that allows for easy transportability and exhibition, and which aims to engage a broad audience (including communities who are not so accustomed to contemporary artistic forms) with the challenge of using technology to achieve sustainability (economic, social and environmental) in the field of agriculture, in Greece.

We believe that transformation needs communities and thus, we consider it important to keep in mind the important stakeholders for tackling this challenge. People that should be involved, included or inspired, people you can meet, learn from and be guided by:

1. Core: artists advocating sustainability, farmers, farmer associations
2. Direct: land workers, researchers, consumers
3. Indirect: end-users, food companies, educators, ecosystem services

SMART AGRICULTURE

REPAIRING THE PRESENT

Challenge No. 6 by Onassis Stegi

Photo credits: Dimitris Parthimos, Geometries (2018), Onassis Stegi

FELLOWSHIP CHARACTERISTICS

The fellowship partner will be AGENSO, an innovative company for agriculture and the environment. The artist will be granted access to local partners' venues, expertise and technologies upon need and request. The LEG consists of high-level experts from industry (IoT, computer engineering, agronomists), science, public bodies, and the arts and will form the network the artist has access to.

The artist is expected to travel to the region to attend workshops, activities, or events or to conduct field research at least 4 times during the fellowship period and should include the travel expenses in the budget plans.

The artist is expected to deliver a presentable outcome of the fellowship in the form of a prototype or artwork and deliver a collectable outcome of the fellowship by the end of 2022 which might be included in the Onassis collection.

ADDITIONAL INFORMATION

Tools

Combining the artificial, the mechanical with the natural leads to creative tensions. The future of agriculture can be shaped by the use of different technological tools. We offer here a list of different tools that are considered as priorities for their implementation and that they can serve as sources of data, inspiration and central pieces in the developed artwork.

Sensors

Internet of Things (IoT)

Blockchain

Big Data

unmanned vehicles

Satellite-based Positioning Systems for Precision Agriculture

Artificial Intelligence (AI)

Cloud computing in agriculture

Drones - Robotic Infrastructure

Satellite Earth Observation

Robotic automation

Climate data records

Visualisation and sonification tools

Readings:

Combining traditional techniques with modern solutions using circularity application

Use cases of IoT use in agriculture

An integrated tool for farmers for the facilitation and more accurate irrigation

A quantitative multi-appraisal tool that aims to support policymakers in identifying greenhouse gas (GHG) emissions along an agri-food value chain

A Biodiversity Integrated Assessment and Computation Tool

Forestry and Other Land Use (AFOLU) investments and policies on GHG emission levels

Convention of artists and technologists working at the intersection of computers, technology, science, and the arts

Arts space with a focus on sustainability

Palestinian artist group creating works on Art/Science/Agriculture:

Visible Project

Nida Sinnokrot

Sakiya – Art/Science/Agriculture

Climate and technology-related festivals:

Climate Care

Floating Berlin

STARTS past artistic productions

STARTS methodologies & co-creation tools

BLUE-GREEN-WALL

REPAIRING THE PRESENT
Challenge No. 7 by Kersnikova



PROBLEM STATEMENT

The majority of food production is nowadays industrial which is leading to exhausting pressure on land and other resources needed for growth. With the widely available ICT technologies and robotics, the production of food can be personalized and tailored to individual use. Employing smart farming would enable more sustainable production of food.

KEYWORDS

Precision farming, ICT & Robotics, Personalisation, Intercognition, Ecosystem

JURY DAY

Jury day will be held in a hybrid format between 13-19 January 2022 (TBC).

Challenge informed by the GD5:
Greening the Common Agricultural Policy /
Farm to Fork Strategy

CHALLENGE CONTEXT

The use of advanced technologies in agriculture enables even more efficient exploitation of raw materials and thus bigger yields. The disadvantage of the industrial approach to food production is that it is difficult to control the quality of the crop which is secondary to quantity. At the same time, high quantities and areas put an excessive burden on the environment. With the availability of advanced technologies, we also gain opportunities for individual users to establish growth systems that can closely monitor the needs of individual households in communities. Such technologically supported systems could also offer food production to non-professional farmers and smaller environmental burdens.

Availability of data obtained by remote observations, data obtained by sensors on the ground, better knowledge of individual plants, animals and microorganisms all allow better understanding and processing of biological processes at the micro-locations in regards to the wider space and ecosystem as a whole. Meaningful use of data and technology should allow the production of higher quality food while personalizing consumption and reducing the burden on the environment.

By creating the plant-machine inter-cognition we seek for solution for a hybrid ecosystem where critical use of technologies enables precision farming for individual food production.

FELLOWSHIP CHARACTERISTICS

Institute Jozef Stefan is a Slovenian major scientific platform where scientists and engineers are developing cutting-edge solutions. The main partner in the fellowship is the Laboratory for robotics that is a leading lab for assistive robotics where engineers are researching and prototyping robotic prostheses and exoskeletons for humans and animals.

The IJS Robo lab is interested in collaborating with creatives who can bring fresh and unexpected insights, reflections, and ideas that could help scientists and engineers to think about robotics out of the box.

The artist, designer, or a group of creatives should have a basic knowledge about ICT and robotics, insightful knowledge about plant growing and animal maintenance. They should have a clear attitude toward the challenges of the Anthropocene, industrialization, and empowering of individuals and society as a whole.

MICROORGANISM CITIES

REPAIRING THE PRESENT
Challenge No. 8 by CCCB

PROBLEM STATEMENT

Microorganisms are key ecological actors. They play a significant role in the sustainability of ecosystems and the health of all organisms, human and non-human. But despite that, they are often disregarded or deliberately removed in the design of our cities. How can we invite microbiota back into urban design?

KEYWORDS

Urban ecology, Biodiversity, Regenerative urbanism, Microbiota, Sustainability

JURY DAY

Jury day will be held digitally on 17th January 2022

ADDITIONAL INFORMATION

[Centre for Contemporary Culture of Barcelona \(CCCB\)](#)

[Barcelona Tech UPC](#)

[Urban Ecology Barcelona City Council](#)

[Institute of Environmental Science and Technology \(ICTA-UAB\)](#)

[Sostenipra: Sustainability and Environmental Protection](#)

[Science Friction. Living Among Companion Species:](#)

[Exhibition curated by Maria Ptqk at the CCCB](#)

Challenge informed by the GD5: Greening the Common Agricultural Policy / Farm to Fork Strategy

CHALLENGE CONTEXT

This fellowship wants to foster our imagination around urban microbiota: What kind of alliances can lead to better ecological interactions? How can we integrate it into sustainable urban design? How might it help us increase biodiversity in the city and improve the health of its inhabitants, human and non-human?

Although microorganisms contribute to a wide variety of ecological functions – the fertility of soils, the quality of air and water, the degradation of organic waste, the decomposition of toxins or the exchange of nutrients among species – current research on the urban microbiota from an ecological perspective is still incipient, and cities continue to be built upon the consideration of microorganisms mainly as pernicious urban dwellers.

We invite artists to rethink the materiality of cities, especially Barcelona, to transform bacteria, fungal microorganisms, or other microbes into allies. From urban gardens to organic soils, street furniture, bioenergetic systems, air or bricks, almost every material component of the city offers an opportunity to rethink the role of the microorganisms involved in it. The aim is to create an artwork or a prototype that allows us to imagine such symbiotic interactions and help us to rethink our cities in a wider ecological sense.

FELLOWSHIP CHARACTERISTICS

The fellowship will allow the selected artist to work with an interdisciplinary group of experts, from microbiologists to architects and urban planners, and connected partner institutions to grant his/her access to knowledge and critical assessment on the topic.

The selected artist is expected to travel to Barcelona at least 4 times during the fellowship period, from February to July 2022, to conduct field research and to attend activities and events.

The artist is expected to deliver a presentable outcome of the fellowship in the form of an artistic prototype to be presented at the CCCB and exhibited in the framework of the S+T+ARTS program.

Stakeholders and Partners:

Universitat Politècnica de Catalunya - BarcelonaTech (UPC), one of the European leading technical universities in engineering, architecture, sciences and technology.

Research group Biomaterials, biomechanics and tissue engineering group (BBT) at BarcelonaTech (UPC).

Institute of Environmental Science and Technology (ICTA-UAB): research group Sostenipra, on life cycle analysis, ecodesign, and industrial ecology.

Barcelona City Council's Area of Urban Ecology and Innovation.

PRESERVING CO-EVOLUTION

REPAIRING THE PRESENT

Challenge No. 9 by MEET

PROBLEM STATEMENT

Cultural, biological and artificial diversity generates contaminations in the co-evolution processes, with new interrogatives about how to stimulate resilience and inclusive sustainability that can lead humanity to find innovative answers to questions such as how can we live together in a changing ecosystem and how can we preserve the future of our planet.

KEYWORDS

Co-evolution, Sustainability, Resilience, Inclusion, Communities

JURY DAY

Jury day will be held in-person on 19th January 2022

Challenge informed by the GD6:

Preserving and protecting biodiversity

CHALLENGE CONTEXT

Through the exploration of the infinitely small microcosms - like proteins and molecules - and the ways they behave, interact, communicate, self-repair in the presence of external agents, we could expand the reflection to larger communities, populations that need to embed diversity and allow its coexistence in a sustainable perspective.

The artist is invited to reflect on how to preserve sustainability and inclusiveness in the complexity of communities and populations (from proteins to natural and human ecosystems) exploring their ability to interact smartly and repair themselves in the transformative processes induced by external factors (e.g. viruses, pollutants, new species, artificial elements, etc).

The goal is to interpret, predict and represent – going from the micro to the macrocosms and vice versa - the trajectories of transformation, sustainability and resilience of the systems challenged by external agents, considering the new forms of coexistence including natural/artificial coexistence and how these could lead to new forms of inclusiveness.

The artist is invited to use digital languages to reconstitute the speculative/prototyping process.

FELLOWSHIP CHARACTERISTICS

The fellowship is implemented in partnership with Area Science Park – as co-hosting institution – where the artist will access the latest technologies in the field of life sciences (e.g. data centre including a genomic sequencer, HPC, data science algorithms) and a scientific support team to work on the following possible but not exclusive trajectories:

- examine environmental samples to see all the components of microorganisms and their community, how they connect with each other, how they react to changes, and to the intervention of an external phenomenon
- research on new algorithms to reassemble DNA sequences and to have a powerful tool for reading organisms
- reconstruct the three-dimensional structure of proteins which helps to identify its function (frontier research)

The fellowship is hosted by MEET in Milan. Participants are expected to be present in Milan on a regular basis and should include the travel expenses in the budget plans. MEET will coordinate the presence of the artist at the co-hosting institution. MEET will put at the artist's disposal the Creative Studio and the Immersive Room.

PRESERVING CO-EVOLUTION

REPAIRING THE PRESENT

Challenge No. 9 by MEET

FELLOWSHIP CHARACTERISTICS

The fellowship is supported by the City of Milan that will make available for the artist all the municipality open data and the advisor staff to access and use them.

The fellowship will be supported by ETT S.p.A. for technological consultancy.

The fellowship is accompanied by a public programme that will involve multiple stakeholders, from citizens and the public sector to research and industry actors, to identify the overall needs and increase collective commitment. Selected artists will have the opportunity to lead public events (workshops, roundtables, etc.) with the support of MEET.

The artist is expected to deliver a presentable outcome of the fellowship in the form of a prototype which will be included in the final exhibition.

ADDITIONAL INFORMATION

[Area Science Park](#)

[Piattaforme Tecnologiche: il sequenziatore genomico di ultima generazione di Area Science Park](#)

[City of Milan](#)

RE-IMAGINING CITY NATURE

REPAIRING THE PRESENT

Challenge No. 10 by In4Art

PROBLEM STATEMENT

The Dutch have always considered nature to be something that needs planning and design. It has brought much, but it is time to change to preserve and protect biodiversity and restore our relationship with nature. How can we re-examine the dominant paradigm around the making ability of nature in cities?

KEYWORDS

Agency, Ownership, Adaptability, Biomimicry, Symbiosis, Senses, Biodiversity

JURY DAY

Jury day will be held in-person on 17th January 2022 @YES!Delft. The selected artist will have a kick-off on January 18th @Witteveen +Bos in The Hague.

ADDITIONAL INFORMATION

[Environmental vision for The Hague \(Use Case\)](#)

[Digital solutions and available tools at Witteveen+Bos Hague, city of peace and justice](#)

Challenge informed by the GD6:
Preserving and protecting biodiversity

CHALLENGE CONTEXT

The city of The Hague is located at the centre of the Dutch metropolitan Randstad coast area, one of the most densely populated regions in Europe. Historically, The Hague and the wider region have always been threatened by the sea and challenged by the land. It has led to a dominant paradigm, in which we have come to see nature as a makeable construct. Now that the city is developing its environmental vision for 2040, there is an opportunity to change course by asking fundamental questions about matters of openness, interconnectedness, agency, diversity, and the identity of nature within cities.

This Repairing the Present Fellowship invites artists to rethink the way in which we can learn to live with those sides of nature which are beyond our sensory limits by using digital technology to understand the complexity of the ecological consequences of our choices. It asks how passion and compassion for nature in the city can be enhanced.

The goal is to develop future proof concepts, brought to fruition as prototypes that can act as tools that enable new worldviews and open doors to alternative ways of co-existing within the city of The Hague.

FELLOWSHIP CHARACTERISTICS

The fellowship partners will be: 1/ Dutch engineering firm Witteveen+Bos, responsible for the environmental impact studies that support the 2040 environmental vision for The Hague, 2/ Europe's leading technology incubator YES!Delft and 3/ S+T+ARTS Regional Centre In4Art. The artist will be granted access to the partners' venues, expertise and technologies upon need and request. The LEG consists of 14 high-level experts from industry, science, public bodies, and the arts and will form the network the artist has access to. We search for proposals that address real-time digital technology, including but not limited to the use of immersive technologies, geofencing, gamification, sovereign identity and any other IoT or AI technologies.

The artist is expected to travel to the region to attend workshops, activities, or events or to conduct field research at least 4 times during the fellowship period. The artist is expected to deliver a presentable outcome of the fellowship in the form of a prototype which will be included in the final exhibition at MAXXI Rome and the innovation spill-over exhibition at ZKM Karlsruhe. Moreover, the artist is expected to produce and deliver a collectable outcome of the fellowship with an edition of at least 2 by the end of 2022 which will be included in the In4Art collection and possibly the Witteveen+Bos art collection.



FLOW OF BERLIN

REPAIRING THE PRESENT

Challenge No. 11 by STATE

Photo credits: Anna Klode

PROBLEM STATEMENT

The condition of Berlin's water bodies is far from optimal and further threatened by multiple anthropogenic impacts and the accelerating climate crisis. This raises concerns and calls for radically new approaches to rethink our future relationship with Berlin's most vital resource and connected ecosystems among competing political, economical, environmental and social interests

KEYWORDS

Water, Pollution, Climate resilience, Public participation, Awareness

JURY DAY

Jury day will be held digitally on 17th January 2022.

ADDITIONAL INFORMATION

Find more information about the project and interviews with the local experts following [this link](#).

Challenge informed by the GD7:

Towards a zero-pollution ambition for a toxic-free environment

CHALLENGE CONTEXT

Berlin, the city of rivers and canals, forms together with the surrounding state of Brandenburg Europe's largest network of inland waterways. But the condition of the water is concerning and the relationship of Berliner's to the region's water bodies remains somewhat ambivalent. Our groundwater, rivers and lakes have multiple functions. They provide drinking water, feed animals and ecosystems, produce energy, create pathways for ships and refresh us in our recreation time.

However, the impact we have on Berlin's water bodies is becoming more serious as the population grows and the use of freshwater increases. Wastewater from sewage treatment plants and pollutants from the air and agriculture are entering the groundwater, rivers and lakes. In addition, changing water temperatures have resulted in decreasing oxygen levels. A frightening fish, mussel and crayfish mortality, the degradation of biodiversity and the contamination of freshwater are just some of the consequences. What prevents us from acting upon this? Are we lacking collective imaginaries that would help us believe that different is possible?

The European Green Deal calls for actions that guarantee a zero-pollution environment. The vitality and conservation of Berlin-Brandenburg's water and a water-smart society is crucial for the future of the capital of Germany, for all its human beings, animals and water-related ecosystems.

This project takes on the challenge of re-examining the human and non-human interdependencies within the ecosystem of Berlin-Brandenburg's water bodies in order to raise awareness for its current condition and invite citizens into collective speculation regarding the possibility of a future multispecies flourishing.

FELLOWSHIP CHARACTERISTICS

The fellowship is organized as a mission-driven journey through the topic of water in the Berlin-Brandenburg area, in close exchange with a diverse group of local experts from all sectors. Through the local experts and connected partner institutions, the selected artist will get access to unique visiting sites such as Hobrechtsfelder Rieselfelder, historic drinking water plants built during the Art Nouveau epoch, the research field site of the Department of Hydrogeology at Technical University Berlin and the experimental laboratory of the Department of Ecohydrology and Biogeochemistry at The Leibniz Institute of Freshwater Ecology and Inland Fisheries. The research field site includes the possibility to conduct a tracer experiment by injecting a fluorescent substance into the groundwater and stream. The experimental laboratory introduces new technologies for chemical water analytics.



FLOW OF BERLIN

REPAIRING THE PRESENT

Challenge No. 11 by STATE

Photo credits: Anna Klode

FELLOWSHIP CHARACTERISTICS

Available technological tools for the artist include in particular technologies for water analytics, sewage treatment and water purification.

Concrete terms of access to the technologies can be clarified in person with the local experts after the start of the fellowship.

During the fellowship, the artist is expected to engage with the general public as well as relevant stakeholders in a strongly collaborative process and show high openness as well as an in-depth and critical assessment of the topic.

The artist is expected to travel to the region to attend meetings and events or to conduct field research at least 4 times during the fellowship. The artist is expected to deliver a presentable prototype or an artwork that will be included in the final exhibition at MAXXI Rome and at ZKM Karlsruhe.

VIRTUOUS CIRCLES: SCHOOLS AS CATALYSTS FOR SUSTAINABLE NEIGHBORHOODS

REPAIRING THE PRESENT
Challenge No. 12 by Onassis Stegi

Photo credits: Elina Giounanli, Onassis Stegi

PROBLEM STATEMENT

Currently, circularity is gaining ground as an inevitable choice. We aim to galvanise awareness within our educational structures, as youth are the heirs of this system, by fostering the investigation of new models of participation on environmental issues, focusing on circularity, transforming our habits and our communities.

KEYWORDS

Youth empowerment, Circular policies, Prototyping - Design thinking, Peer-to-peer/Collaborative practices, Open modular design/technologies

JURY DAY

Jury day will be held digitally between 13-19 January 2022 (TBC).

Challenge informed by the GD8:
Mainstreaming sustainability in all EU policies

CHALLENGE CONTEXT

Due to a prevailing profit-driven economy, unofficial and unjust waste management networks are established creating a “black box” on the life cycle of materials when it comes to littering and waste. Overtourism and high fluctuation of habitats in combination with the insufficient infrastructure contribute to resource-stress on the energy-water-food-employment nexus in Greece.

As circularity emerges as a solution in both societal and economic constructs, we explore the ways to develop or stimulate circular practices and habits among youth in the educational environment who will transform habits and communities. What is the role that art and technology could play in this transition? How we might re-invent our relationship to design, production & consumption?

Sustainability is increasingly an issue for the younger generation’s future and teenagers are starting to mobilize, usually in form of demonstrations. However, there is not an organized structure inside the Greek educational system that supports awareness of climate issues, and it seems to be left to the individual teachers’ initiatives.

Our key methodological tool is the initiation of what we would call Virtuous Cycle Sprints: these will include working with artists & educators, the local expert group and a minimum of three model schools (protypa) in order to develop and initiate a curriculum and a series of student projects.

We would like to encourage creative solutions from the schools, in the neighbourhoods, that employ innovative design thinking, use of advanced technologies, participatory creative research, storytelling, and contemporary artistic forms/media for a transition towards a circular future.

FELLOWSHIP CHARACTERISTICS

We are looking for an artist to develop a format for schools that could contribute to the understanding and awareness of circularity and the design of rapid prototypes within the educational system. This format should innovatively combine artistic media (especially new media), research and data gathering activities by the students in a way that can be applied by the schoolteachers in multiple settings and result in projects that can be presented to the public. ‘Training the trainers (teachers)’ is an integral part of this process.

We expect the artist to:

- Work with educators from selected public schools to develop and present a collaborative project with students.
- Prepare a toolkit or lesson plans addressed towards educators that wish to replicate the methodology in their own school.

VIRTUOUS CIRCLES: SCHOOLS AS CATALYSTS FOR SUSTAINABLE NEIGHBORHOODS

REPAIRING THE PRESENT
Challenge No. 12 by Onassis Stegi

Photo credits: Elina Giounanli, Onassis Stegi

FELLOWSHIP CHARACTERISTICS

c) Offer minimum 5 training sessions for educators on how to implement the toolkit or lesson plans.

d) Develop a series of pilot projects by the students

We believe that transformation needs communities and thus, we consider it important to keep in mind the role of stakeholders in tackling this challenge. People that should be involved, included or inspired, people you can meet, learn from and be guided by:

Core: Schools students, Educators-Teachers

Direct: Parents Associations, School Board, Municipality representatives

Indirect: Local Citizens, Neighborhood citizens initiatives, Local-small scale businesses

The artist is expected to travel to the region to attend S+T+ARTS academy events, workshops and activities or to conduct field research at least 4 times during the fellowship period and should include the travel expenses in the budget plans. Through the residency, Onassis Stegi will offer the artist professional facilities and support artistic development, networking, research, and the production of new works. The artist is expected to collaborate with local teachers/and artists and should foresee a fee for the local collaborators in the budget plan.

We expect the artist to show a willingness to collaborate, exchange and experiment and to agree to showcase the final outcome in the framework of the S+T+ARTS program.

ADDITIONAL INFORMATION

[Butterfly Diagram -Circular Economy](#)

[Circularity Deck-A Circular Economy Tool](#)

[Circularity Deck-Miro Board](#)

[Linear To Circular Program- Ellen MacArthur Foundation](#)

[Circular X - Circular Economy Tools](#)

[Teaching Resources- Ellen MacArthur Foundation](#)

[The Circular Design Guide- Resources](#)

[WEF- Strategic Intelligence 'Circular Economy'](#)

[Dismantling Tools \(GR\): Mobile spaces of encounters & learning](#)

[Mikro Dentro \(GR\): - alternative educational initiative](#)

[Mikros Dounias \(GR\): Intercultural pedagogic initiative](#)

[POIO \(GR\): Makers Space Municipality of Athens](#)

[Circularity Gap report](#)

[SitrA \(FI\):Circular Economy teaching](#)

[Bio & Circular \(FI\): Global Growth From Bio And Circular Economy](#)

PEER-TO-PEER LEARNING

REPAIRING THE PRESENT

Challenge No. 13 by Kersnikova

PROBLEM STATEMENT

The process of school learning ex-cathedra typically transferred top-down cloning existing knowledge. How to engage kids and young adults into attractive, playful, creative, innovative learning with the help of artificial intelligence in order to achieve critical thinking and intellectual emancipation.

KEYWORDS

Education, Peer-to-peer knowledge transfer, Critical thinking, Intellectual emancipation, AI assistant, Community building

JURY DAY

Jury day will be held in a hybrid format between 13-19 January 2022 (TBC).

Challenge informed by the GD8:

Mainstreaming sustainability in all EU policies

CHALLENGE CONTEXT

The school's way of teaching knowledge does not enable us to keep up with the rapid changes that require new knowledge from society, which is why we started to educate children and young people for the professions of the future in the non-governmental sector with the help of a workshop.

Since the number of participants of workshops are limited and workshop execution confined to the bigger cities the reach to kids and young adults is rather short. The goal is to create digitalized informal learning environment in which children and young adults learn and play, connect with each other and learn from each other (children teach children, peer-to-peer) and the possible use of AI algorithm as a mentoring tool.

FELLOWSHIP CHARACTERISTICS

The fellowship partners will be: SOLVESALL D.O.O. (SA) is a spinoff company from Artificial Intelligence Laboratory (AILAB), Jozef Stefan Institute (JSI). Luka Bradeško of CEO of Solvesall is a co-author of the Curious Cat Chatbot that was built upon a common-sense AI algorithm developed at Stanford University since the '80s of the previous century. We see abandoned Curious cat applications as a great opportunity for innovative repurpose.

The artist will be granted access to the partners' venues, expertise and technologies upon need and request. The artist should be able to reflect on the limitations of traditional teaching methods and critically employ the knowledge harvested from the experience in interaction with AI/Curious cat.

The artist will be invited to create a visual interactive environment for peer-to-peer learning from which a design for an online tool can be developed.

CHALLENGE LAB

REPAIRING THE PRESENT

Challenge No. 14 by Kersnikova

PROBLEM STATEMENT

When we are bringing together artists, designers and engineers, we regularly experience a conflict of situated knowledge, where innovators struggle to find a common understanding, speaking different “professional language”. How to create an interactive tool that helps them understand each other and it’s helping them to collaborate toward final innovation.

KEYWORDS

Collaborative environment, Transdisciplinary gamification, Artificial intelligence, Radical innovation

JURY DAY

Jury day will be held in a hybrid format between 13-19 January 2022 (TBC).

Challenge informed by the GD9:
The EU as a global leader

CHALLENGE CONTEXT

Bringing innovators that are coming from different professional backgrounds into the room when they need to collaborate on innovation development often creates a cacophony of languages and a lack of understanding of what was the intention of saying. The ability to clearly express ideas to other innovators usually depends on the ability to vividly describe the point of disclosure. Synchronizing participants 'languages makes their collaboration more effective and shortens the duration of the process. The digitized process of innovation can be connected in real-time to the database of other innovation processes which can enable us to work together not only for the European Climate Pact but also other challenges with the same ambition as the EU climate pact.

Those who can express themselves with sketches, mental patterns, or even drawings can explain themselves more precisely. Since not everyone is able to express themselves in designs the challenge is to develop a digital tool that even they can use a visual language to express them clearly. In using this digital tool in the process of innovation a database of the information uploaded can enable an AI algorithm to iterate the inputs into thought-provoking speculations.

FELLOWSHIP CHARACTERISTICS

The fellowship partners will be ForeachLabs d.o.o. - a digital agency dedicated to the development of innovative digital solutions based on new approaches and creative solutions to challenges. The project team has experience in the development of digital solutions - mobile applications, web presentations and applications, and the development of advanced information experience applying different machine learning algorithms.

The artist, artist group, or designer should be able to envision a gamified and interactive collaborative tool that allows participants to simultaneously construct the architecture of ideations that can lead to the final ideas.

BUILT SPACES IN A NETWORK(ED) SOCIETY

REPAIRING THE PRESENT

Challenge No. 15 by Snowball & Gluon

PROBLEM STATEMENT

The region of South West Flanders is a strongly urbanized area, marked by a rich industrial history. Its territory is characterized by a series of abandoned and vacant yet inspiring built landscapes. Old industrial buildings, religious heritage and empty stores are just a few examples. In light of the European Green Deal and the New Bauhaus, how might we revive those spaces with the help of digital technologies, to facilitate new sustainable and inclusive economic, social and cultural activities?

KEYWORDS

Circularity (of materials, spaces), Space neutrality, Sustainability & CO2 neutrality, Co-creation & citizen participation, Digital technologies (IoT, AI, VR / AR, blockchain)

JURY DAY

Jury day will be held in-person on 17th January 2022.

ADDITIONAL INFORMATION

[Leiedal](#)

[Policy plan Leiedal 2020 – 2025](#) (Dutch only)

[STARTS Prize – Ciutat Vella's Land Use Plan](#)

Challenge informed by the BH1: Affordable & accessible living spaces through community engagement

CHALLENGE CONTEXT

From the second half of the 19th century onwards, the region of South West Flanders has slowly & steadily evolved from an agrarian area to a region with an important industrial character. This economic transformation has led to the intense development of multiple infrastructures and has resulted in a regional identity with a distinct entrepreneurial DNA.

In line with the European Green Deal, the region aspires to transition towards a more sustainable and inclusive future. The inter-municipal organisation Leiedal firmly draws the card of space neutrality and wants to explore how vacant & abandoned built environments can be meaningfully transformed. Artists are invited to deepen, broaden, imagine and/or accelerate this transition.

Together with the local communities, the artists are challenged to develop new imaginary and creative usages for these sites. These should question contemporary economic models that focus on growth, solely consist of carbon-neutral actions and make critical use of digital technologies such as AI, IoT, blockchain and big data. The artist can select one or more sites and will be supported by tech experts.

FELLOWSHIP CHARACTERISTICS

During the fellowship, the artist will be supported by a Local Expert Group composed of local practitioners from the field of cleantech, data management, urban planning, blockchain, policy, energy management, AI, virtual & augmented reality and education. Our fellowship partner is the inter-municipal organization Leiedal, whose core activities focus on the dynamic and durable development of South West Flanders as an attractive area for work, life and leisure. The artist will get access to sites (buildings and/or open spaces) in the region. Following an introduction and research visit, the artist and the Local Expert Group will select one or more sites/areas suited to the implementation of the proposal.

Through the hosting institutions' network, the artist will get access to local experts/companies/research institutions in the field of AI, IoT, blockchain, big data and visualisation technologies such as VR and AR. Specific expertise required by the artist for the implementation of the project will be evaluated by the Local Expert Group.

This Fellowship is highly collaborative, aimed at strengthening the quality of the open space in the region. It involves local target groups (entrepreneurs, youngsters, policymakers and researchers) and strives to develop a project with the potential of duplicability (tools, methods & outcome) to other sites and (European) regions.

The artist is required to travel to the region to attend meetings and events/conduct field research at least 4-6 times during the fellowship.



SNOWBALL

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DECOLONISING MARS

REPAIRING THE PRESENT

Challenge No. 16 by Art Hub Copenhagen

Photo credits: NASA

PROBLEM STATEMENT

Humankind is going to Mars, and regardless of what we are going to find in outer space, we will need to face ourselves when we get there – including the relationship to our others, to so-called virgin territory, and to the damaged planet Earth. We invite applications to address the imaginaries and implications of space travel and migration in the dialectic between life in space and life on Earth.

KEYWORDS

Space, Decolonisation, Space diasporas, Sci-fi, Migration

JURY DAY

Jury day will be held in-person on 19th January 2022.

Challenge informed by the BH2:

Sustainable living in Europe & beyond

CHALLENGE CONTEXT

Space migration has a pronounced relation to both urban life and ecological crises on Earth. In various vanguard movements and countercultures, human life in space has represented a radical scientific and/or messianic horizon. From world-building in genres of sci-fi and fantasy to the Russian bio-cosmists of the early 20th century, and Afro-futurists dramatising racialised alienation, there has been speculation about the possibility – or necessity – of humankind projecting itself into space to live on other planets. Today, multiple disciplines are involved in extending the human sphere of life to extra-terrestrial realms: however, this effort involves not only scientific investigation and the development of new technologies but also a negotiation of the assumptions and ideologies that accompany the reproduction of human civilisation, whether in space or here on Earth. We invite applications to address the imaginaries and implications of space travel and migration in the dialectic between life in space and life on Earth.

We also request applicants to consider the aspect of sustainability. This aspect is inevitably linked to discourses surrounding our living spaces and the natural environment, which are the focal points of the New European Bauhaus, and to research and innovation which are all key areas of the European Green Deal.

CHALLENGE CONTEXT

We encourage applications from a wide range of technologies and artistic mediums.

For this challenge, applicants can take their point of departure from questions such as the following:

- Is space migration the ultimate techno-utopian project or a defeatist venture that accepts the ecological brokenness and irreparability of Earth's as givens? What possibilities for considering human habitation as an 'anywhere' lie between these extremes?
- How can material and morphological cultures resulting from the technological innovations of space research benefit the repair of Earth's damaged environs?
- How can we rethink Eurocentric and outdated – or downright offensive – metaphors of conquest, settler culture and 'space colonisation' that may still be active in space research and its quest for what US President John F. Kennedy called "the new frontier"?
- How can we address the political subjectivisation implied by space migration: for example, the notion that a few astronauts represent humankind? What universalisms (if any) in the representation of 'human civilisation' are relevant to space migration? How can humankind's journey into space be a way of leaving anthropocentrism behind?



DECOLONISING MARS

REPAIRING THE PRESENT

Challenge No. 16 by Art Hub Copenhagen

Photo credits: NASA

FELLOWSHIP CHARACTERISTICS

The selected artist will have access to the following network:

- Members of a specialised Local Experts Group
- Curator, art historian and co-director of Art Hub Lars Bang Larsen
- Curator and co-director of Art Hub Jacob Fabricius
- Relevant connections are attached to the members of this primary network based on the artist's needs.

Art Hub Copenhagen was founded in 2018 as a facilitating, inquiring, and experimental art institution. We are focusing on building interdisciplinary networks through a range of activities. These span from residencies and artistic development programs to discursive and curatorial activities centred on artistic practices and research for both Danish and international artists

Through the S+T+ARTS residency, Art Hub will offer the artist professional facilities and sparring in artistic development, networking, research, and the production of new works.

We expect the artist to show a willingness to collaborate, exchange and experiment. He/she/they will produce artwork under any form as the outcome of the residency and has to agree to showcase it in the framework of the STARTS program.

Art Hub

S+T+ARTS



IMPROVING URBAN SUSTAINABILITY

REPAIRING THE PRESENT

Challenge No. 17 by SONY CSL & MAXXI

Sou Fujimoto, Energy Forest. ph Musacchio&lanniello, Courtesy Fondazione MAXXI

PROBLEM STATEMENT

Explore the impact of new technologies in modern urban environments. Devise possible future scenarios to improve the quality of life and sustainability of cities, making people aware of the complexity of the bio-socio-economic challenges of our era.

KEYWORDS

Sustainability/livability, Disruptive urban innovation, Awareness and engagement, AI, Data-driven modelling

JURY DAY

Jury day will be held digitally on 14th January 2022.

ADDITIONAL INFORMATION

[Kreyon City Teaser video](#)

Challenge informed by the BH2:
Sustainable living in Europe & beyond

CHALLENGE CONTEXT

How can artistic, interactive, and engaging imagery connected with scientists through cutting-edge technology suggest a critical and theoretical perspective to re-shape the present and reach a sustainable future? Cities are at the core of modern-day societies since they are the centre of nations' innovation processes and economic life in general. This centrality and importance are why we call artists to submit projects in order to work and improve digital technologies linked to the urban context. In this framework, modern technologies might be valuable tools to improve cities' living standards. The challenge aims to look for new perspectives of contemporary life waiting to be disclosed, proposing new unforeseen scenarios to envision the sustainability of cities as well as the lifestyles of their citizens. The present challenge aims at promoting cross-fertilization between very different disciplines, testing and experimenting with radical new ideas and creative processes for innovative, sustainable and fulfilling urban experiences.

FELLOWSHIP CHARACTERISTICS

The successful candidate/s will have the unique residency opportunity at MAXXI Museum in Rome, in tight interactions with local experts and researchers from Sony CSL at "Enrico Fermi" research centre. The candidate will exploit this knowledge network to better understand urban environments, identify risks and opportunities, and assess them through modern technologies. New disruptive ideas might come from the cross-fertilisation between technology and art, joining efforts to re-shape urban problems. We expect a continuous interaction in both the definition and development of the artwork/artistic prototype, trying to involve all the different actors at each stage of its development. The final artwork/artistic prototype is expected to investigate meaningful representations of current urban issues, using different data sources and state-of-the-art algorithms, helping design new scenarios for the solutions/analysis. During the process, the artist(s) will receive support and feedback from relevant local actors and stakeholders through a series of dedicated workshops. The final result will be disseminated through a series of meetings with the public and stakeholders.

SUSTAININGSCAPES

REPAIRING THE PRESENT

Challenge No. 18 by CYENS

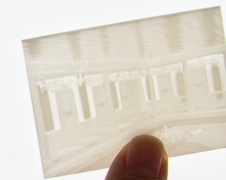


Photo Credits: Stefanos Papadas and Myrto Aristidou, CYENS CoE

PROBLEM STATEMENT

Cyprus' prevalent tourism model relies heavily on the year-round "sun and sea" narrative, overshadowing the true local human and natural assets of the country, while gradually transforming pristine habitats into artificial all-inclusive experiences. This project aspires to propose novel approaches - a concept, an experiment or a prototype - that will contribute towards sustainable shifts in the sector of tourism.

KEYWORDS

Sustainable Tourism / Environmental Sustainability, Digital Technologies and Fabrication, Local materials and/or resource, Accessibility, Community Engagement

JURY DAY

Jury day will be held digitally between 17-19 January 2022 (TBC).

ADDITIONAL INFORMATION

[Cyprus Recovery and Resilience Plan 2021-2026](#)

[The Cyprus Sustainable Tourism Initiative \(CSTI\)](#)

[National Tourism Strategy 2030 Summary](#)

[Visit Cyprus \(Official Website of the Cyprus Deputy Ministry of Tourism\)](#)

Challenge informed by the BH2:

Sustainable living in Europe & beyond

CHALLENGE CONTEXT

Each year, approximately 3,5 million tourists visit Cyprus, equal to 4 times the country's population, making the tourism sector one of the main pillars of the Cypriot economy. This momentous influx of tourists also brings some negative impacts: disproportionate demands for water and energy, in a place of increased droughts and insufficient natural resources; superfluous development of built environment and infrastructures with a heavy toll on urban, rural and wildlife ecosystems; heavy carbon footprint due to air/sea transport needs. While counteracting all the negative effects of tourism in Cyprus - and in fact, other Mediterranean locales - is utopian, novel tourism practises should foster societal, economic, environmental and cultural changes towards long-term sustainability.

Building upon the fundamental principles of the New Bauhaus vision, this residency encourages synergies between art & technology to envision a socially inclusive, environmentally ethical and digitally-enabled tourism sector. We are looking for a mission-driven collaborative project that taps into, and critically examines the local human and natural assets (narratives/data/materials) to finally propose shifted tourism practices respecting the eco-semiotics of environmentally sensitive tourism-dependent communities. While terroir and context are set specifically for Cyprus, this project can act as a paradigm

for other areas of the Mediterranean that share a similar profile. The artist is expected to explore and employ methodologies from the various fields of the local expertise made available, such as interactive media, emerging technologies, machine learning, and/or an array of digital fabrication & prototyping tools.

FELLOWSHIP CHARACTERISTICS

This project will be enabled by the collaborative innovation spaces of the local regional centre (CYENS) and its industry partner (PwC Cyprus). CYENS and PwC Cyprus will provide access to ICT/emerging technologies labs and expert consultation. PwC Cyprus will make available its Experience Centre and provide any other relevant input possible. CYENS will offer the research and technological expertise of the ITICA and Museum Lab MRG teams, while it will also make available the digital fabrication & prototyping tools from the Thinker Makerspace.

The LEG network includes industry professionals that focus on sustainable development, cultural and artistic activities, eco-tourism and emerging technologies, academics from universities and cultural organizations that focus on contemporary art, media art, museology, emerging technologies and ICT, as well as representatives from municipality authorities and public



CYENS
CENTRE OF EXCELLENCE

S+T+ARTS



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SUSTAININGSCAPES

REPAIRING THE PRESENT

Challenge No. 18 by CYENS

Photo Credits: Stefanos Papadas and Myrto Aristidou, CYENS CoE

FELLOWSHIP CHARACTERISTICS

organisations with a focus on tourism, sustainability strategic planning and development.

The artist is expected to produce a concept, an experiment or a prototype that will address the subject of developing sustainability sensitive practices in the context of Tourism. We will favour self-driven, research-based, critical artists who will demonstrate a working knowledge for the implementation of their proposal.

The artist will be expected to present their project in the relevant S+T+ARTS Prototyping Park 5-day showcase event and create an interactive presentation of his work process during the Digital Immersion MakersLab Workshop. Both events are to be held between May-October 2022.



BLOCKCHAIN SOCIETY

REPAIRING THE PRESENT

Challenge No. 19 by Art Hub Copenhagen

Photo credits: Massimo Botturi

PROBLEM STATEMENT

Blockchain technologies open the door to reconfigurations of the economy and the social fabric. We invite applications to explore the promises and potentials of blockchain from the point of view of their symbolic and systemic aspects, including their consequences for representation and contemporary systems of knowledge and power.

KEYWORDS

Blockchain, Decentralised Autonomous Organisations, Governance, Techno-utopia, NFT

JURY DAY

Jury day will be held in-person on 19th January 2022.

Challenge informed by the BH3:
Improve the quality of our lives

CHALLENGE CONTEXT

Decentralised and non-hierarchical, blockchain technologies echo the techno-utopian discourses associated with the Internet in the 1980s and 1990s. Based on Decentralised Autonomous Organisations (DAOs), blockchain opens the door to reconfigurations of the economy and the social fabric. According to Wikipedia, DAOs are “organisations represented by rules encoded as a computer programme that is controlled by members and not influenced by a central government... The precise legal status of this type of business organisation is unclear.”

We invite applications to explore the promises and potentials of blockchain from the point of view of their symbolic and systemic aspects, including their consequences for representation and contemporary systems of knowledge and power.

We also request applicants to consider the connections between blockchain and sustainability through the lens of the European Green Deal (EGD) or the New European Bauhaus (NEB). For example, blockchain might play a key role in areas such as the management of sustainable industries, but also an excessive carbon footprint. Moreover, blockchain applications are likely to permeate our digital and even physical living spaces thanks to the technology’s potential for shared spaces management.

CHALLENGE CONTEXT

For this challenge, applicants can take their point of departure from questions such as the following:

- Blockchain can be said to crystallise the contradictory tendencies of digital culture. It can provide infrastructure for the unbridled movement of capital, but can also be used for systems enabling Universal Basic Income. It is inimical to conventional democratic institutions, but can also be used for safeguarding voting mechanisms. Moreover, while, on the one hand, it has a large carbon footprint for unauthorised public applications, on the other hand, it can assist in the implementation of sustainable development goals. What ethical discussions should underpin such human-designed and inevitably biased technologies?
- What new relations between cyberspace and the social and natural realms do autonomous digital systems help create? How should we map or picture these forms or organisations that occur in parallel to, or below the level of the nation-state? How does blockchain redefine existing public spheres and forms of assembly, governance and sovereignty?
- Upending conventional hierarchies between copy and original, object and data, blockchain-based NFTs (non-fungible tokens) certify the uniqueness of a digital asset. As astronomical prices for some NFT artworks have shown, this potentially heralds a new



BLOCKCHAIN SOCIETY

REPAIRING THE PRESENT

Challenge No. 19 by Art Hub Copenhagen

Photo credits: Massimo Botturi

CHALLENGE CONTEXT

horizon for both art-making and the art market. How do NFTs affect concepts of authenticity and uniqueness as qualities of an artwork? How do NFTs affect the binary of actual and virtual, and other existing configurations of material and immaterial realities?

FELLOWSHIP CHARACTERISTICS

The selected artist will have access to the following network:

- Members of a specialised Local Experts Group
- Curator, art historian and co-director of Art Hub Lars Bang Larsen
- Curator and co-director of Art Hub Jacob Fabricius
- Relevant connections attached to the members of this primary network based on the artist's needs.

Art Hub Copenhagen was founded in 2018 as a facilitating, inquiring, and experimental art institution. We are focusing on building interdisciplinary networks through a range of activities. These span from residencies and artistic development programs to discursive and curatorial activities centred on artistic practices and research for both Danish and international artists.

Through the S+T+ARTS residency, Art Hub will offer the artist professional facilities and sparring in artistic development, networking, research, and the production of new works.

We expect the artist to show a willingness to collaborate, exchange and experiment. He/she/they will produce an artwork under any form as the outcome of the residency and has to agree to showcase it in the framework of the STARTS program.

REPAIRING THE URBAN FABRIC

REPAIRING THE PRESENT

Challenge No. 20 by MEET

PROBLEM STATEMENT

The artist is invited to face the challenge of the anthropic, biological and artificial transformation of an urban ecosystem, in response to the incursion of external elements (like viruses but not only) exploring how to prevent and weaken the impact of the external agent on the urban fabric, boosting an ecosystem decolonized from pathogens and pollutants.

KEYWORDS

Decolonizing, Urban fabric, Proximity, Natural/artificial, Coexistence

JURY DAY

Jury day will be held in-person on 19th January 2022.

ADDITIONAL INFORMATION

<https://humantechnopole.it/en/>

<https://forestami.org/>

<https://dati.comune.milano.it/>

Challenge informed by the BH3:
Improve the quality of our lives

CHALLENGE CONTEXT

The urban ecosystem has been severely challenged by the Covid 19 emergency and related restriction measures.

Large and complex cities, like Milan, draw strength from human relations, synergies connected to proximity and dense networks of relationships, including hybridized communities.

For this reason, social distancing measures had deeply damaged its social fabric, the ribbing of connections and therefore its capacity to regenerate itself.

On the other hand, and for the same reasons, the virus had travelled faster in big cities, having a stronger impact on their ecosystems also due to the presence of endemic pathogens related to the pollution of the air, of the water, of the soil.

We cannot forget the impact of the digital acceleration on the current urban imbalance, the coexistence of artificial and human corridors that made the complexity even more challenging.

The artist will be invited to focus on the city of Milan as a pilot of repairing the urban fabric.

The artist is invited to use digital languages to reconstitute the speculative/prototyping process.

FELLOWSHIP CHARACTERISTICS

The fellowship is implemented in partnership with Human Technopole Milano – as co-hosting institution – through the Structural Biology Research Centre that will share with the artist cryo-ET data, electron tomography data of cells and fluorescence microscopy data (mostly kymographs).

The fellowship is hosted by MEET in Milan. Participants are expected to be present in Milan on a regular basis and should include the travel expenses in the budget plans. MEET will coordinate the presence of the artist at the co-hosting institution. MEET will put at disposal of the artist MEET the Creative Studio and the Immersive Room. The fellowship will be supported by the City of Milan that will make available for the artist all the municipality open data and the advisor staff to access and use them. The fellowship will be supported by ETT S.p.A. for technological consultancy.

The fellowship is accompanied by a public programme that will involve multiple stakeholders, from citizens and the public sector to research and industry actors, to identify the overall needs and increase collective commitment. Selected artists will have the opportunity to lead public events (through workshops, roundtables, etc.) with the support of MEET.

The artist is expected to deliver a presentable outcome of the fellowship in the form of a prototype which will be included in the final exhibition.

FOR A MORE HARMONIOUS CITY

REPAIRING THE PRESENT

Challenge No. 21 by CCCB

Photo credits: Microtonal Wall by Tristan Perich, Sónar 2016 / Alba Rupérez

PROBLEM STATEMENT

Sound is increasingly a dimension of the city that has implications over many urban factors: from health to biodiversity to new forms of mobility. Interventions in the acoustic fabric of the city can be used to understand better urban dynamics, but also to improve living conditions for both humans and non-humans alike.

KEYWORDS

Sound as data, Urban Acoustic Ecology, Sound Art, Sound as urban design, Citizen science

JURY DAY

Jury day will be held digitally on 17th January 2022.

ADDITIONAL INFORMATION

[Centre for Contemporary Culture of Barcelona \(CCCB\)](#)

[Sónar Barcelona](#)

[Universitat Politècnica de Catalunya](#)

[Earthworks, a Semiconductor installation for SonarPLANTA](#)

Challenge informed by the BH3:
Improve the quality of our lives

CHALLENGE CONTEXT

The interruption of "the normal" that the months of lockdown in 2020 brought with them highlighted one aspect of city life that often goes unnoticed: the sonic dimension of urban space. Citizens rediscovered the act of listening as a form of tuning with other agents of the city that normally go unnoticed, especially other species that share our urban environment. They also could reflect upon how sound impacts our quality of life and conditions our experience of the city.

For a more harmonious city wants to highlight the key importance of sound both for understanding and improving urban dynamics and environments. The residency is aimed at artists wanting to use sound as a rich and useful data source to understand urban infrastructures, services and networks. Also, to investigate the acoustic ecology of Barcelona and how human and non-human sounds interact in the sonic footprint of the city.

Finally, while urban noise is often considered a form of pollution and silences the defining factor in quality life in terms of sound, this residency wants to encourage sound interventions in public space that can play a role in new experimental models of urbanism shaping a greener, more sustainable and participatory public streetscape.

FELLOWSHIP CHARACTERISTICS

The fellowship network will be composed of: 1/ Sónar a flagship festival in Europe exploring the interactions between art, technology and innovation and pioneers in connecting new artistic disciplines with the general public, 2/ Universitat Politècnica de Catalunya - BarcelonaTech (UPC), one of the European leading technical universities in the fields of engineering, architecture, sciences and technology, and 3/ S+T+ARTS Regional Centre Centre for Contemporary Culture of Barcelona - CCCB.

The selected artist is expected to travel to Barcelona, to develop the residency sometime from February to July 2022, to conduct field research, to experiment and attend activities and events at least 4 times during the fellowship period. During this period, the selected artist will have access to consult leading experts from the fields of science, technology, creativity and innovation who will guide the working process and the development of the final proposal.

The artist is expected to deliver a presentable outcome of the fellowship in the form of a prototype/show/installation which will be presented on 2 occasions: a first deliverable in the context of Sónar Festival 2022 (16-18 June 2022) and the final piece in an exhibition in the framework of the STARTS program.



● Art Hub

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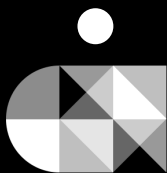
● STATE



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Sony CSL

● MEET

DIGITAL
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● CCCB

Centre de Cultura
Contemporània
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● MA XXI

● ONASSIS
STEGI



CYENS