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Winners 2022 selected:

STARTS Prize of the EU Commission for Holly Herndon (US) and Giulia Foscari (IT)

(Linz/Brussels, July 13, 2022) The STARTS Prize 2022 attracted a total of 1499 entries from 96 countries, with the top prizes of 20,000 euros each going to Holly Herndon (US) and Giulia Foscari (IT). Their projects were awarded by the international jury, which included Francesca Bria (IT), Andres Colmenares (CO/ES), Asako Tomura (JP), Lucía García (ES) and Alexander Mankowsky (DE).

The prestigious STARTS Prize is part of the long-term STARTS initiative of the European Commission. The competition is announced annually and is endowed with a total of 40,000 euros. Awards are given to innovative projects at the interface of science, technology and art that have the potential to have a significant impact on economic and social innovation in Europe. A GRAND PRIZE FOR ARTISTIC EXPLORATION and a GRAND PRIZE FOR INNOVATIVE COLLABORATION will be awarded, in addition to 10 Honorary Mentions and 18 Nominations. The winners will each receive 20,000 euros and will be prominently featured at the Ars Electronica Festival in Linz as well as at a series of events organized by consortium partners Bozar, Waag, INOVA+, T6 Ecosystems, French Tech Grande Provence and the Frankfurt Book Fair. The STARTS Prize will also be present at the European Robotics Forum from June 28-30 in Rotterdam with a STARTS Talk, a keynote talk and a workshop. Then, on July 1, the "More than Planet" Exhibition opens at Observatory Leiden with work from the STARTS Prize pool by Territorial Agency and Forensic Architecture. Finally, the Frankfurt Book Fair will devote a special day to STARTS on October 21.

Grand Prize - Artistic Exploration

Awarded for artistic exploration and artworks that have a strong potential to influence or alter the use, deployment, or perception of technology.

Holly+ / Holly Herndon (US)

<https://holly.plus>

"(...) a unique hybrid project [...] merging a new custom voice instrument with a creative platform and a test of a decentralized and cooperative economic model that can have deep implications in changing the power dynamics of copyright and IP in the music industry, while raising questions of the interdependencies of a digital economy, digital sovereignty, and digital identity." (Excerpt from the jury statement)

With "Holly+", artist Holly Herndon has created her digital twin that anyone can use to make music. Her "Holly+" instrument makes it possible to upload polyphonic audio to a website and receive a version of it sung in Holly's voice - the latest version of "Holly+" even works in real time and can thus be used for performances.

"Holly+" was developed by Herndon Dryhurst Studio, Never Before Heard Sounds (NYC) and Voctro Labs (Barcelona). The collaborative project combines machine learning, freely



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available online instruments and tools in a way that makes it possible for people to easily and quickly become creative themselves.

“Holly+” is embedded in a comprehensive art and research project that also explores economic aspects. Hundreds of people are part of the “Holly+ DAO” (Decentralized Autonomous Organization) and can have a say in Holly’s digital twin and how to use it appropriately. Once approved, any work created with her voice can be scrutinized for its public Holly+DAO identity. Any piece that is offensive or “inappropriate” can be rejected by the voting stewards.

70 works have been sold so far. All profits from the sale of approved works are split between the creator (50%), the DAO (40%) and Holly herself (10%). The money that goes to the DAO is used to further develop Holly+ and create new tools for people to experiment with. By experimenting with her own intellectual property, Holly Herndon wants to set a precedent that will help others navigate the dawning era of AI art.

Grand Prize - Innovative Collaboration

Awarded for innovative collaboration between industry or technology and the arts that opens new pathways for innovation.

Antarctic Resolution / Giulia Foscari (IT), UNLESS

<https://una-unless.org/en/>

“It opens up new perspectives and insights by leveraging the means and power of art as a research practice as well as a way to enable awareness and concern, participation and involvement.” (Excerpt from the jury statement)

Antarctica accounts for 10 percent of the land mass, 70 percent of the freshwater and 90 percent of the ice on planet Earth. It is the largest repository of scientific data on our climate history and thus an irreplaceable basis for important environmental policies. At the same time, it poses the greatest threat to coastal settlements around the world: if its huge ice masses melt, sea levels will rise to threatening heights.

Currently, the kilometer-thick ice sheet is melting at an alarming rate: 200 Olympic-sized swimming pools are pouring into the sea every minute. A complete melting of the Antarctic ice would cause sea levels worldwide to rise by 60 meters and trigger the largest migration movement ever experienced by mankind.

Despite the fact that our future therefore depends to a large extent on the fate of Antarctica, our seventh continent is criminally neglected. Moreover, Antarctica is contested territory, with a wealth of coveted resources.

Giulia Foscari / UNLESS created “Antarctic Resolution” to raise awareness of Antarctica as one of our few global commons and to establish advocacy for the only continent without an indigenous population. Their message: protecting Antarctica means protecting our own species.



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Giulia Foscari's "Antarctic Resolution" is a transnational and multidisciplinary collaborative project and was published as a 1000-page volume to mark the bicentennial of the first recorded human arriving on the continent. The declaration was written by 150 leading Antarctic experts and published by Lars Müller Verlag. The encyclopedic publication focuses on the scientific potential of the continent, its current geopolitical significance and its extraordinary settlement model. The volume includes numerous scientific studies, photographic essays, data-driven infographics, cartographies, and architectural drawings.

On the occasion of the 30th anniversary of the Protocol on Environmental Protection to the Antarctic Treaty (Madrid, Spain), the project was presented in the Central Pavilion of the 17th International Architecture Biennale in Venice and in Madrid's Museo Nacional Thyssen-Bornemisza.

As part of the 44th Antarctic Treaty Consultative Meeting (ATCM) in Berlin, the project went beyond the world of art and culture and galvanized the German capital with the campaign "Speak Up for Antarctica Now." Berliners and passersby were called upon to demand that ATCM delegates from all 29 decision-making nations account for the future of a continent 1.4 times the size of Europe. The delegates were asked to assume their responsibility as citizens of Antarctica and to stand up for intergenerational justice.

Honorary Mentions STARTS PRIZE '22

A sun architecture - The party is in full swing / Stéphane Bonnard (FR), KompleX Kapharnaüm (FR)

<https://www.youtube.com/watch?v=9DA7REdf8BI&list=PLX1bZV63YG6dtGrZYleJEPE5POAHfjusM&index=25>

"If energy is limited, who will decide how to use it? Bringing this high-level topic to the context of personal decisions, this project allows citizens to reduce the abstraction of this socioeconomic challenge and reflect on the tensions between individual and communal priorities." (Excerpt from the jury statement)

Turning on an appliance today is an automatic gesture. In order to rethink this self-evident way in which we consume energy, Stéphane Bonnard and KompleX Kapharnaüm try to raise our awareness of how much effort is required to generate energy. They are also raising a political question: If energy is only available in limited quantities, what do we want to use it for? By means of self-made photovoltaic kits, energy is generated and stored at "A sun architecture - The party is in full swing." This energy is in turn used to power an installation where visitors can decide what to do with the energy. Make coffee? Power a sound system? Provide light? In addition, visitors are invited to engage with the following ideas: Who actually decides what energy is used for when it is no longer always available, virtually without limits?



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Ambient Weaving / Hosoo Co., Ltd, Yasuaki Kakehi Lab, The University of Tokyo, ZOZO NEXT, Inc.

<https://ambientweaving.lab.zozo.jp/en>

*“(...) fabrics that change in real time as if they were breathing, interwoven with their surroundings. The fabric changes gently in response to light, temperature, humidity, carbon dioxide, and other factors in the space, enabling people to wear a natural environment.”
(Excerpt from the jury’s statement)*

HOSOO’s Nishijin textiles have a long history. Since 1688, their distinctive textures and design have been striving for beauty. “Ambient Weaving” is a research project that utilizes these design strategies to express appearance and environmental changes. Artists, designers, engineers and craftsmen developed a series of prototype textiles based on the methods, materials and aesthetics of Nishijin textiles, whose appearance is influenced by interaction with environmental changes. “Woven Clouds” or “Woven Glow”, for example, are electrically optimized textiles that can be programmed to change their transparency or emit light.

Avatar Robot Cafe DAWN ver.β / Ory Yoshifuji (JP)

<https://dawn2021.orylab.com/en/>

<https://orylab.com/en/>

<https://youtu.be/vj1z6HEAkYY>

*“The café was highly rated for its inclusive approach to solving social issues by creating a secure space and a community. We also have great expectations for its future aim towards a world where people can care for themselves in an era of an accelerating super-aging society.”
(Excerpt from the jury’s statement)*

Visitors to the “Avatar Robot Café” are served remotely. Via the personnel agency “Avatar Guild,” users can apply to be waiters and waitresses and then serve their customers using robots such as “OriHime” and “OriHime-D” without being on site. In an innovative way, the “Dawn Avatar Robot Café” wants to explore and show what technological aids are needed so that people who have limited mobility due to mental or physical illnesses or impairments can better participate in working or social life.

Cleaning Emotional Data / Elisa Giardina Papa (IT)

<http://www.elisagiardinapapa.org>

“Elisa’s work serves as a beacon to direct the development of a European AI, grounded in our naturally given diversity of cultures and languages.” (Excerpt from the jury’s statement)

“Cleaning Emotional Data” is a three-channel video installation dedicated to the low-paid micro-workers around the world who “clean” data to train algorithms to recognize emotions. Their tasks include labeling, annotating, and validating large amounts of data that make AI systems work in the first place. In 2019, the artist herself worked out of Palermo for several North American companies providing “clean data sets.” Her tasks included categorizing emotions, describing facial expressions, and taking self-portraits that were used to animate



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three-dimensional figures. The “Cleaning of Emotional Data” documents these micro-tasks while tracing a history of emotions that questions the methods and psychological theories underlying the mapping of facial expressions.

Digital Violence: How the NSO Group Enables State Terror / Forensic Architecture (GB)

<https://www.digitalviolence.org/#/explore>

<https://forensic-architecture.org/investigation/digital-violence-how-the-nso-group-enables-state-terror>

<https://vimeo.com/561276293>

<https://vimeo.com/568474572>

<https://vimeo.com/561278207>

“Forensic Architecture has been able to create an inspiring large-scale, open, and sophisticated artistic-legal resource on top of a robust yet accessible set of evidence, achieving what great art does best: making visible the invisible and translating complexity into clarity while challenging power structures and holding them accountable.” (Excerpt from the jury’s statement)

In “Digital Violence: How the NSO Group Enables State Terror,” the artist collective “Forensic Architecture” focuses on the Pegasus malware. The software, developed by the Israeli cyberweapons company NSO Group, is used worldwide against (human rights) activists and journalists; “Forensic Architecture” wishes to illustrate its extent and effects. They developed a navigable digital platform where they tell the stories of people targeted with Pegasus in numerous videos. For their extensive research, they brought in filmmaker Laura Poitras, who conducted interviews with activists from Saudi Arabia, the United Arab Emirates, Morocco, India, Palestine, Rwanda, Mexico, and Togo. In addition, investigators from The Citizen Lab and Amnesty International, as well as whistleblower Edward Snowden and musician Brian Eno, were engaged to map the global landscape of cyber-surveillance today. With Digital Violence, Forensic Architecture has mapped NSO-related activity around the world for the first time, revealed new connections between digital and physical violence, and exposed the ways in which digital infection moves like contagion within networks and personal relationships.

Inanimate Species / Joana Moll (ES)

<https://www.janavirgin.com/INANIMATESPECIES/>

“(…) seeks to highlight the subtle but continuous replacement of the natural order by technological advance, and reflects not only on the cannibalization of ecologies but also on the problem of visually representing climate change.” (Excerpt from the jury statement)

In 1971, a group of international engineers developed the Intel 4004, the very first commercial microprocessor. This event marked a decisive moment in recent history, as it was possible for the first time to give an inanimate object something like “intelligence.” It ushered in a new era in technological development, which in turn ushered in a new techno-capitalism. What followed was a never-ending process of perfecting and increasing the performance of this new “artificial intelligence” — and a simultaneous mass extinction of



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animals on Earth that continued to accelerate. According to a study published by WWF in 2014, humanity has wiped out 50 percent of all species since 1970. It appears that there is a link between the ubiquity of microprocessors, the increase in their computing power, and the acceleration of species extinction. To illustrate this point, the project draws a link between the exponential growth of microprocessors and the decline in the number and diversity of species - particularly insects, which are an essential part of our ecological infrastructure and whose decline is alarming. Ultimately, “Inanimate Species” aims to show the links between the rapid development of technocapitalism, the acceleration of climate change, and the resulting decline of key ecosystems.

Mikromedas AdS/CFT 001 / Valery Vermeulen (BE)

<https://www.valeryvermeulen.net/works/mikromedas/>

“Valery Vermeulen highlights the inspirational role that art can play in a cross-disciplinary collaboration between art, science, and technology by deliberately positioning her work at the boundary where technological and scientific knowledge ends.” (Excerpt from the jury’s statement)

“Mikromedas AdS/CFT 001” is a 45-minute piece of music exploring black holes by Belgian artist Valery Vermeulen. The music was composed from gravitational wave data, elementary particle trajectory data from near black holes, and observational data from white dwarfs. The piece can be presented as a music concert, live audiovisual show, or audiovisual installation.

First released in December 2021, the critically acclaimed “Mikromedas AdS/CFT 001” is part of the longer-term multimedia project “Mikromedas,” in which Valery Vermeulen experiments with data sonification, data visualization and algorithmic composition. He always works with data from space research as well as astrophysical simulation models. His latest “Mikromedas” series is titled “AdS/CFT Series” and is dedicated to the ultimate challenge of theoretical physics: trying to reconcile quantum physics with Einstein’s general theory of relativity.

The Exploded View Beyond Building / Biobased Creations (NL)

<https://theexplodedview.com>

“(…) it is a great source of inspiration and encouragement for a new attitude that shows how the joint efforts of creativity, engineering and environmental consciousness can lead to a new way out of the stranglehold of resource- and energy wasting of old style construction industry.” (Excerpt from the jury’s statement)

“The Exploded View Beyond Building” is an iconic exhibition in the form of a house made entirely of bio-based materials, telling the story of the circular construction methods and the value chain from which they emerged. The prototypical project aims to illustrate what is already possible in terms of building with nature and what will be possible in the near future. Visitors can scan all the materials to find out who made it, how it was made, how far the development of the material has progressed, and much more. In addition, storytellers are on hand to help visitors understand the how and why behind each material, but also to share the



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bigger picture of how sustainable building could change our landscapes, our agriculture, our value systems, our health, and our way of life in general. In addition to the exhibition, the “Embassy of Biobased and Circular Building” has also created a network where producers, designers, builders, farmers, policy makers, artists and scientists can meet to share insights, doubts, needs and fears and work together towards a true circular system of sustainable building.

The Plant Intelligence Plan / Tianyi Zhang (CN)

<https://zhang-tianyi.com/>

“This work brings us closer to an awareness of the plant kingdom and how all beings need each other in order to exist and coexist.” (Excerpt from the jury’s statement)

In his project “The Plant Intelligence Plan,” Tianyi Zhang focuses on the intelligence of plants. She uses biotechnological tools and materials to restore the ecological relationships between commercially cultivated crops and animals. With her project, Tianyi Zhang pleads for a careful and respectful treatment of plants, meaning not merely a better protection of the earthly ecosystem, but the construction of a new order of human civilization. The relationship between humans and ecology is to be redesigned from the ground up — Tianyi Zhang calls for overcoming our anthropocentrism and establishing equal ecological relationships with all living beings and plants.

UITSLOOT / Gijs Schalkx (NL)

<https://uitsloot.nl>

<https://gijsschalkx.nl>

“Gijs’ proposal is not only ingenious but also very successful.” (Excerpt from the jury statement)

Why rely on big corporations and their promises to save the world when you can do it yourself? Dutchman Gijs Schalkx has considered how the internal combustion engine of vehicles can continue to exist in a future without fossil fuels. His result is the “Slootmotor,” which is powered by locally available energy sources and can be obtained from ponds or roadside ditches with a few tools and DIY solutions: It is the environmentally harmful methane gas that is collected and used as an energy source before it is released into the atmosphere. “It may take eight hours to fill the tank to drive 20 kilometers — but those 20 kilometers are always the best of my life,” says Gijs Schalkx. At <https://uitsloot.nl/>, he provides info, drawings, sketches and videos to encourage all of us to take action ourselves.

Ars Electronica: <https://ars.electronica.art/news/de/>

STARTS Prize 2022: <https://starts-prize.aec.at/de/>

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Nominations STARTS PRIZE '22

Alone Together / Anna Anderegg (CH), Swan Park (KR), Marco Barotti (IT/DE), Sara Kim (KR)

<https://annaanderegg.com/Alone-Together>

<https://vimeo.com/537857303/cf8e85022d>

<https://vimeo.com/506387046/108af595c5>

Digital SUPERPOWER! / Ling Tan (SG/UK)

<https://lingql.com/>

<https://superpower.lingql.com/>

Ent- / Libby Heaney (GB)

<https://lightartspace.org/programme/ent>

Entanglement / ANNEX (INT)

<https://entanglement.annex.ie/Pavilion>

<https://strelkamag.com/en/article/states-of-entanglement-data-in-the-irish-landscape>

Gran Turismo Sophy™ / Pete Wurman and the teams at Sony AI, Polyphony Digital and Sony Interactive Entertainment

<https://www.gran-turismo.com/world/gran-turismo-sophy/>

<https://www.nature.com/nature/volumes/602/issues/7896>

<https://www.nature.com/articles/s41586-021-04357-7>

<https://ai.sony/articles/sonyai009/>

Key Workers. Migrants' contribution to the COVID-19 response / Federica Fraganane (IT), Alex Piacentini (IT), Marta Foresti/ODI

<https://migrants-keyworkers-covid-19.odi.digital/>

LIFE SUPPORT SYSTEM (Ecosystem Services Estimation Experiment) / DISNOVATION.ORG (FR/PL/CA)

<http://disnovation.org/lss.php>

<https://vimeo.com/544776068>

<https://www.flickr.com/photos/n1c0la5ma1gr3t/albums/72157717940705013>

Neo Stone Age / Erco Lai (TW)

<https://www.behance.net/gallery/122420521/Geopolymerization-mineral-forming-3>

Political Atmospherics / Manifest Data Lab (INT)

<https://www.manifest-data.org/>

<https://vimeo.com/702306324>

Project PLATEAU / MLIT: Ministry of Land, Infrastructure, Transport and Tourism (JP)

<https://www.mlit.go.jp/plateau>

Quorum Sensing: Skin Flora Signal System / Helena Nikonole (TR/RU), Lucy Ojomoko (RU)

<https://www.facebook.com/QuorumSensing>

<https://nikonole.com/quorumsensing>

SolarSoundSystem / Cédric Carles (FR)

<https://solarsoundsystem.org/>

<https://www.atelier21.org/>

SpreeBerlin – The Voice of a River / JKUKULA (DE)

<https://www.spreeberlin.de/>

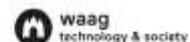
<http://jakobkukula.com/design/spree-berlin.html>



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Susceptible / Anna Dumitriu (GB), Alex May (GB)

<https://annadumitriu.co.uk/portfolio/susceptible>

Symbiosis / Polymorf (NL)

<https://www.symbiosis.show/>

<https://vimeo.com/678200184>

The Glass Room: Misinformation Community Edition / Tactical Tech (INT)

<https://www.theglassroom.org/misinformation>

Vertical Walking / Rombout Frieling (NL)

WITHER – A Slice of Rainforest Disappearing at the Rate of Deforestation / Thijs Biersteker (NL)

<https://thijsbiersteker.com/wither-2021>



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