

FOR A
BRAVE
NEW
BRUS
SELS.

Lab.01
Artistic Versus
Technocentric Approaches
On Smart Cities

Lab.01

Artistic Versus Technocentric Approaches On Smart Cities

From 22 until 26 October 2018, the Museum of Art, Architecture and Technology in Lisbon (PT) is hosting the exhibition *For a Brave New Brussels. Lab.01 Artistic Versus Technocentric Approaches On Smart Cities*. The initiative for this project was taken by BOZAR, GLUON and the curator Stéphanie Pécourt, with the support of the Brussels-Capital Region, and is organised on the occasion of the State visit to the Republic of Portugal of Their Majesties the King and the Queen of the Belgians.

For a Brave New Brussels is an exhibition and discussion platform that stimulates the discourse around the future of our cities in times of technological revolution and ever-increasing global challenges. Contemporary cities are magnets that attract people, resources, ideas, opportunities and knowledge. 50% of the world's population already lives in cities and this percentage will rise to 70% by 2050. Today cities have to respond to this speed of migration and concentration or they will become social ticking bombs. The reality of a city is never given, its evolution not immutably determined. How will they manage social and democratic developments, but also technological, economic, and environmental issues in a global world? Each city will be confronted with different political, social, religious and ecological challenges that can only be solved by the engagement and collaboration between many different players.

For a long time technology has been seen as a crucial element in preparing cities for a turbulent future. Since its early days, the application of new digital technologies to the urban environment and processes has been celebrated worldwide for its ability to increase the quality of urban living, but this engagement has mostly been limited to a technocratic focus on energy efficiency, mobility and infrastructure. Moreover it has privileged top-down interventions by local government actors and mostly overlooked psychological, philosophical, ethical, social and aesthetical questions related to digital developments impacting our future cities.

This is why *For A Brave New Brussels* engages in a socio-political discourse that involves citizens and different interest groups in facing this issue—the question of what constitutes a desirable ‘intelligent’ city in a time of technological revolution? In this discursive process, artists can play an important role. Through the work of 11 Brussels-based artists, the exhibition seeks to propose critical and creative visions leading to the conceptualization of more human and original ‘intelligent’ cities. Their visions could be at the origin of the emergence of new paradigms and certainly have the competence to engage and inspire a large participation of policymakers, companies, citizens and activists in the search for brave new cities where all of us feel at home.

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INTRODUCTION

Paul Dujardin
Christophe De Jaeger

In the last five years the Center for Fine Arts in Brussels has stood not only for the classical fine arts and the esthetical and socio-cultural aspects of art, its programme increasingly focused upon the larger context of art, science and technology collaborations and their spill over potential for other fields, from town planning to social innovation, media, education or ICT's. For this reason it created a new department of Art & Research in the Center for Fine Arts and is a structural partner of the Brussels platform for Art, Science and Technology: Gluon.

In the light of new societal challenges and the erosion of our welfare and democracy models, we believe that cultural institutions have a moral responsibility to endorse active citizens' engagement. Imagination must be a core component of this process. For democracy demands constant care, thoughtful reflection and action from each of us. Its very existence is dependent on the ability to nourish individuals' imagination that will eventually inspire them to engage with the democratic process.

For a Brave New Brussels is an exhibition and discussion platform that stimulates the discourse around 'Smart Cities'. Since its early days, the application of new digital technologies to urban spaces and processes has been celebrated for its ability to increase the well-being of citizens, but this engagement has mostly been limited to a technocratic focus on energy systems, mobility and building efficiency. It has privileged top-down interventions by local government actors and mostly overlooked psychological, philosophical, ethical, social and aesthetical questions related to digital developments impacting our future cities. Therefore we have to engage in a sociopolitical discourse that involves citizens and different interest groups in facing this issue—the question of what constitutes a desirable future, one worth living in? In this discursive process, a very important role is attributable to the artist. *For A Brave New Brussels* presents artworks as a starting point for original and alternative views on the Smart City. We believe that the sensibility of artists is highly relevant in the conceptualisation of a city that is not only smart, but also comforting, participatory and fun.

This technocratic versus artistic approach in urban development is not new. In *Der Städtebau nach seinen künstlerischen Grundsätzen* the 19th century art historian Camillo Sitte already defended the notion that cities should be designed with artistic merits and ideals in mind. He commented that aspects of composition, which produced harmonious effects, were yielding to the 'loose and dull' outcomes of technical considerations. The successful Italian squares often made majestic moves that could not easily be measured against metrics of road efficiencies. But apart from these aesthetical considerations, *For A Brave New Brussels* shows that contemporary artists relate in many different ways to technology and the city. Some of them use advanced digital technologies and biosystems to create new inspiring tools; an artificial intelligent programme that creates alternative urban plans for Brussels or an intelligent beehive to be installed on rooftops. Others present utopic worldviews or applications that might inspire technologists and scientists working on smarter cities. The sensible work *Waveform* for example sonifies the corrosion of steel, which could lead to alternative applications for data-representation.

Artists have always imagined the future, but at the same time they are the critical antennae of our contemporary society. The poet Ezra Pound stated that 'artists sense and describe aspects of the world around us that the rest of us don't see because we are so busy living in it'. A major artistic statement in the exhibition is that a smart Brussels should be inclusive and take into account the diversity of its population. Too often technology is seen as a tool for protection and surveillance, but how can it lead to social progress and more opportunities for vulnerable communities?

Artists have the power to engage and inspire a large participation of policymakers, companies, citizens and activists in these discussions. And this is exactly what *A Brave New Brussels* will facilitate. 'Lab.01' puts artists, scientists, scholars, policymakers and other players from Brussels and Lisbon around the table to discuss the relation between city and citizens, man and machine or nature and culture. These documented interactions will nurture a future edition 'Lab.02' in Korea in next year.

In the meantime we would like to thank the artists and the participants to this programme for their contribution. And we extend our gratitude to the MAAT for their willingness to host this project and the government of the Brussels-Capital Region for making this possible.

The new man in the era of the Smart City... ideology returns to favour.

The contemporary US science fiction writer William Gibson – the father of cyberpunk – wrote that his work and his talent lay neither in predicting nor revealing, but rather that it was by viewing the languages of technology through a different prism and through a poetic interpretation that he succeeded in extrapolating fictional worlds described by some as prefiguring tomorrow's - often dystopian - societies.

The Lab.01 *For A Brave New Brussels* invites no fewer than 11 artists representing the Brussels digital scene to take a singular look at the issues of urbanity and a concept that has become the new 'doxa' of international megalopolises: that of the Smart City.

This concept, that permits so-called attractive cities to conduct a self-assessment with reference to standardized barometers and thereby claim a global ranking, is used for a city that optimizes its resources and stimulates innovation, change and information and communication technologies. Between the prototypes of intelligent cities and the progressive implementation of intelligent systems in contemporary cities, the objectives converge and this even if the concept remains polysemic. The stated ambition of the Smart City is to contribute on the one hand to improving the quality of urban services and even reduce costs, and on the other to satisfying the needs and expectations of the citizen. The intelligent city – according to a recent study by Intel, in association with Juniper Research (March 2018) – would make it possible to 'give back' 125 hours per year to each citizen, considering that he or she would move around better, in a less polluted environment and with increased security. Given that in 2050 the statistical scenarios project that more than 70% of the world's population will live in cities, the Smart City will be imposed not as a 'possible scenario' but as the inevitable urban model – rationally imagined.

Architectural brutalism was inextricably linked to a socialist ideology in Eastern Europe where building the modern city was to favour inevitably the emergence of the *new man*. Similarly, just as the libertarian offshore micro states and floating nation cities imagined by the Seasteading Institute would consecrate the advent of *Homo sapiens technologicus*, so too the concept of the Smart City intrinsically translates and induces a vision of present-day man (*Smart People*) as modern demiurge, a hybrid citizen with the power of agility, evidently interconnected and highly individualized. This concept – which would not suffer from any fictionalization or fantasizing and that nevertheless remains anything but neutral and a-ideological – demands that one should question its formalization, its operationalization and on what it is based. In effect, if the Smart City intends to meet the needs of citizens, what needs and expectations are we speaking of? By whom are they defined? For what purposes is it so important to give back hours of so-called freedom? Collecting Big Data would make life easier: But for who? For what? Why would the interests of major private groups such as American Electric Power, Suez, Véolia, Netseenergy, HSBC, etc. proceed from the common and public interest? The concept of the Smart City is in itself an indicator of the profound metamorphosis of our societies under the impact of the digital. If this heralds the return to favour of ideology, it is important to initiate a debate on our visions of the future.

The first Smart Cities, in South Korea the famous Ubiquitous Cities, did not show themselves to be Eldorados prized by indifferent populations. Largely populated by socially and economically privileged populations and for whom this model made sense, some of them were nevertheless abandoned by citizens who felt watched and confined in sanitized environments. Who wants to live in a perfect world and in perfectly developed cities? Who only wants to meet people like themselves on the basis of algorithms that assemble people on the basis of recorded affinities? The city is by definition a place of creative chaos. The artist can play a role in staging the ‘disorder’ of the technocratic visions of intelligent cities, bring to them the doses of the ‘unordered’. The artist’s vocation is to remind that nothing can be imposed in the name of a supposed rationality and that everything is a question of the prism through which reality is interpreted and thus incarnated.

Our societies of the future will thus be distinguished by the power of creation, of self-regeneration and of communication that will reside potentially in the hands of ‘each citizen’. Some see in this the arrival of a more inclusive society. Empowerment – favoured by the new technologies – will overturn relations between the citizen, private companies, start-ups and the public authorities. Think of WikiLeaks, whistle-blowers, the roles of the GAFAM (Google, Apple, Facebook, Amazon, Microsoft) and the way in which they are radically transforming the relationship to information and established political authorities as so expertly formalized by Lawrence Lessig of the Harvard Law School. The very idea of the nation state changes when one considers that if the three most popular social networks – Facebook, Twitter, Instagram – were nations, they would together represent 1 billion individuals more than China.

‘The brave new world’ is never immutably given. The Lab.01 and exhibition *For A Brave New Brussels* – that we hope inaugurates a cycle – presents for your discovery creations that bear the mark of utopian or dystopian visions, sometimes critical, sometimes poetic, contributed by Younes Baba-Ali – Christoph De Boek – Jan De Cock – Pierre Jean Giloux – LAb[au] – Julien Maire – AnneMarie Maes – Joanie Lemerrier – Beat Streuli – Maarten Vanden Eynde and Frederik De Wilde.

In *Paraboles* Baba-Ali explores the physical and metaphorical relationship between migrants and their host communities. He installs the popular cultural trope of the satellite dish in the white space of the gallery. This object adorns the exterior facades of migrant housing complexes in European cities, allowing them to connect with 'home', through televised images and sound. By reversing the location of the dish from outside to inside, Baba-Ali disrupts its ability to obtain a signal. It must therefore be move from side to side in a futile attempt to properly perform its function. Through this subversive act of manipulation, Baba-Ali attempts to raise awareness about the impossibility of locating 'home', a situation that many migrants find themselves in, where they exist in a state of limbo between two zones, with a weakened connection to 'home' akin to the defunct operation of the satellite dish. By re-imagining this scenario, Baba-Ali highlights how migrant culture has mutated and been assimilated, sometimes involuntarily, and is no longer able to connect properly through typical channels of communication.

Parabolic antennas, programmed engines, electric cables
Variable dimensions / Courtesy of the Artist



YOUNES BABA-ALI (°1986, FR)
LIVES AND WORKS IN BRUSSELS (BE)

Younes Baba-Ali makes art that is unconventional and critical, and that is mostly shown in public spaces or unusual places. He uses his keen observation skills to raise pertinent questions with society and above all, his audience. Through his work he aims to confront the spectator with his ingrained habits and the dysfunctions of our contemporary society. Baba-Ali's work often assumes the form of the readymade, but underneath its apparent simplicity, a complex balancing exercise is taking place. He graduated from l'Ecole Supérieure des Arts Décoratifs de Strasbourg in 2008, and from l'Ecole Supérieure d'Art d'Aix-en-Provence in 2011. He has participated in several international exhibitions and biennials worldwide. In May 2018 Baba-Ali received a commission to create a new work, entitled 'Untitled' for the opening of KANAL (Centre Pompidou) in Brussels.

The Scientist in Residence Program encourages renowned contemporary artists to welcome a scientist or researcher into their studio, with the aim of developing innovative projects at the crossroads of art and science. In this framework, artist Jan de Cock has invited climatologist Frank Raes and interactive developer David Surprenant to his studios in Brussels and Torino for a new collaboration. Their project, *Resistance Transistor*, which is still in the prototype stage, will be further developed into an artwork to be presented in September 2019. *Resistance Transistor* aims to raise awareness on climate change while inspiring a feeling of empathy towards nature. The team has conceived a system with multiple devices, some to be carried by users, others to be affixed against several trees and rocks around the world. By connecting their devices, humans and the natural actors will be able to communicate with each other: the trees and rocks will provide reliable data on air quality for example, or on the temperature on the same date and place many decades ago. Humans, meanwhile, will be asked to share information on their consumption behaviour, possibly triggering a personal reflection. Following their first encounter, humans, trees and rocks will be able to remain in contact with each other by exchanging a small part of their devices. The trees and rocks will also initiate conversations about their encounters with humans, in which humans could listen in. All these exchanges aim to foster collaboration between humans and non-humans in their collective resistance against climate change.

Resistance Transistor 2018 –

JAN DE COCK (°1976, BE)
LIVES AND WORKS IN BRUSSELS (BE) AND TORINO (IT)

Jan De Cock is a contemporary Belgian visual artist. From the start of his career, his art has revolved around production and the ways in which an artist relates to the broad culturally-injected concept of Modernism. In 2003 Jan De Cock entered the Prix de la Jeune Peinture Belge (Prize for Young Belgian Painters) competition. He is the second Belgian artist to have had a solo show at Tate Modern and the first living Belgian artist to have had an exhibition at MoMA, which opened on 23 January 2008. Much of his work appears to draw visual and formal comparisons between early-20th century abstract art movements (such as Constructivism, Cubism, and Suprematism) and contemporary design and mass production. Additionally, de Cock commonly includes a performative element, which is intended to act as social criticism or to demonstrably insert his work in a system of exchange. He is represented by Office Baroque in Brussels, Fons Welters in Amsterdam, and Francesca Minini in Milan.
www.jandecock.net

FRANK RAES (°1955, BE)
LIVES AND WORKS IN LAVENO MOMBELLO (IT)

Frank Raes worked as Head of the Climate Change Unit at the Joint Research Centre of the European Commission in Ispra (IT) until 2015. He obtained his PhD from the University of Ghent (BE), and conducted post-doctoral research at UCLA, Los Angeles (USA). He was a visiting professor at the California Institute of Technology, Pasadena (USA) (2009) and teaches at Bocconi University, Milan (IT) (2005 – present). Raes's scientific background encompasses atmospheric chemistry, climate change and climate change impacts. His research and that of his team supported the development of an integrated climate change and air quality EU policy. In 2013 he wrote the book: 'Air and Climate: conversations about molecules, and planets, with humans in between', with interviews with leading climate scientists. In 2015, he curated JRC's first art & science festival 'RESONANCES' in Milan (IT). He continues to give climate lectures, and consults for scientific and artistic organizations. In 2012, he founded 'museoCASANOVA' (www.museocasanova.it) and the 'Museum of Anthropocene Technology' (www.museumofanthropocentechnology.org)

DAVID SURPRENANT (°1987, CA)
LIVES AND WORKS IN SHEFFORD (CA)

David Surprenant is an interactive developer from Montréal (CA) who is currently working in Europe. He is passionate about new technologies, wishing to explore their full potential through diverse projects in collaboration with enterprises and artists. As part of this, he has contributed to numerous projects that received awards and international press attention, such as *Delete* (2017). Recently he developed several projects with the Belgian artist Dries Depoorter including the mobile application *Die With Me* (2018).



Master Sculptor Jan De Cock in collaboration with climatologist Frank Raes and interactive developer David Surprenant. With the support of Gluon.
Work in progress – started in May 2018

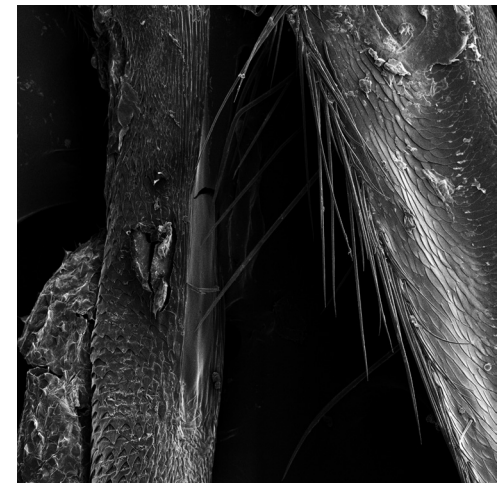
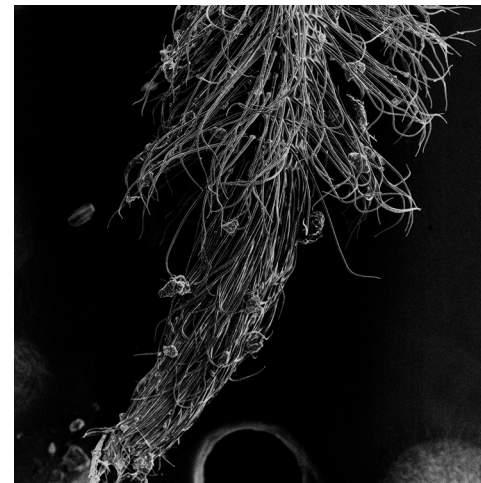
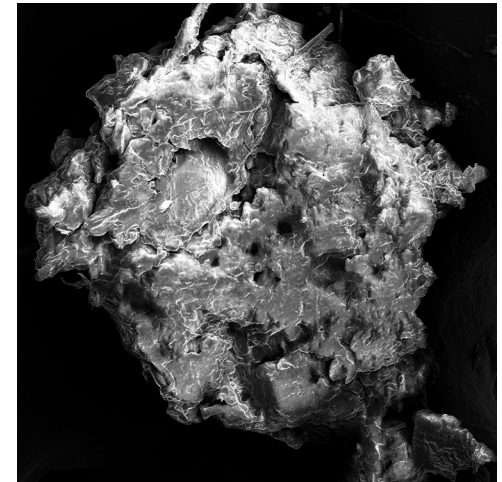
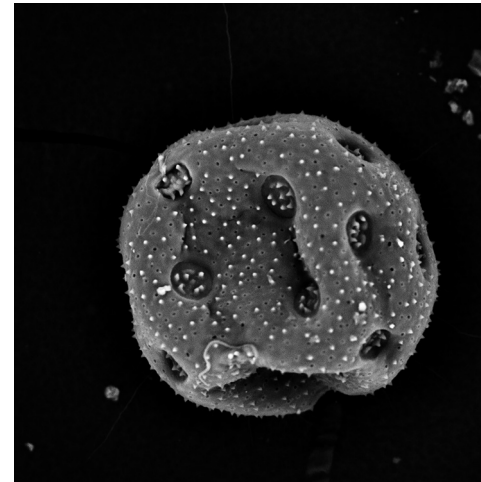
The Intelligent Beehive project is an ongoing research project by Anne-Marie Maes which focuses on the disappearance of the honeybee. In the past ten years, Maes has engaged in the growing, hacking, digitising, building, and thinking about beehives – particularly those in urban areas. Collaborating with biologists, designers and engineers, she has re-conceptualised what a beehive is and what it can be. To support the disappearing bee colonies, Maes has developed *The Intelligent Guerrilla Beehive (IGB)*, a metabolic sculpture with a double goal. On the one hand, it offers a safe refuge for the city's honeybees, and on the other hand it is a biosensor that interacts with the environment, measuring the pollution of the foraging fields around the beehive. The *IGB* project is also a starting point for exploring possible futures through artistic research on materials science and biotechnology. Navigating between a blueprint and a proof of concept, the *IGB* is an artefact for the future, a fragment of a world to come. It tackles a new and challenging field of application, where a collaboration between human and non-human actors is necessary to maintain the system's resilience.

ANNEMARIE MAES (°1955, BE)
LIVES AND WORKS IN BRUSSELS (BE)

AnneMarie Maes is an artist who has been studying the close interactions and co-evolutions within urban ecosystems. Her research practice combines art and science, with a keen interest in DIY technologies and biotechnology. She works with a range of biological, digital and traditional media, including live organisms. Her artistic research is materialised in techno-organic objects that are inspired by factual/fictional stories; in artefacts that are a combination of digital fabrication and craftsmanship; in installations that reflect both the problem and the (possible) solution, in multispecies collaborations, in polymorphic forms and models created by eco-data. On the rooftop of her studio in Brussels (BE) she has created an open-air lab and experimental garden where she studies the processes that nature employs to create form. Her research provides an ongoing source of inspiration for her artworks. *The Bee Agency* as well as *the Laboratory for Form and Matter* - in which she experiments with bacteria and living textiles - provide a framework that has inspired a wide range of installations, sculptures, photography works, objects and books – all at the intersection of art, science and technology. AnneMarie Maes has exhibited in art centres and at festivals around the world. In 2017, she received an Honorary Mention in the Hybrid Art category at Ars Electronica for the *Intelligent Guerrilla Beehive* project.

The Intelligent Guerrilla Beehive project 2016 –

Sculpture, bee colony, electronics,
solar panel, smart materials, bacteria / Courtesy of the Artist



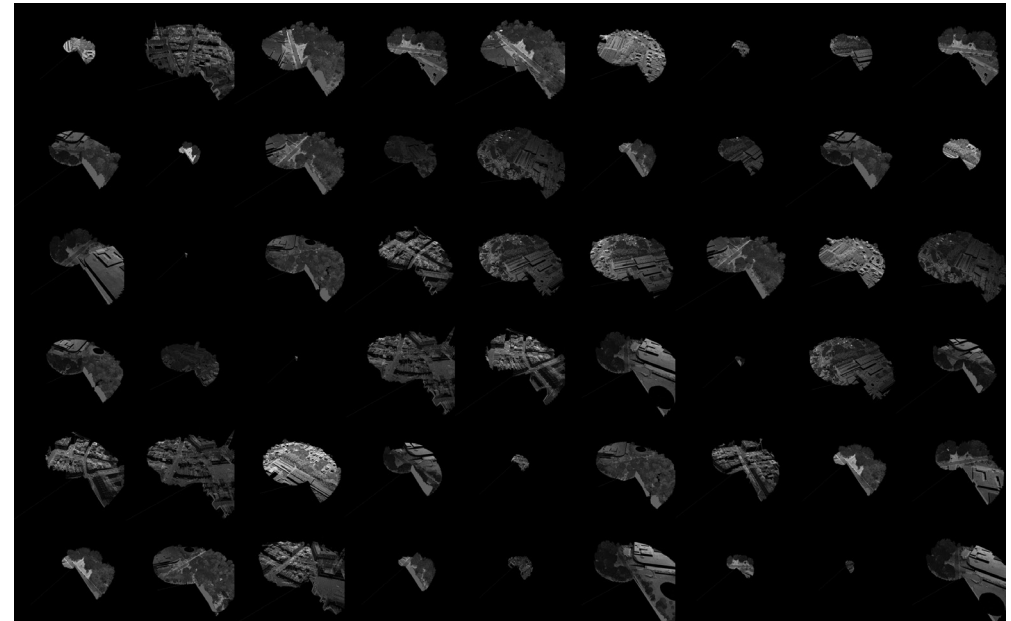
xxx-cavat0r – RADIAL 2018

Installation / Produced by Studio De Wilde
in collaboration with Denis Perevalov

xxx-cavat0r - RADIAL is an interactive and generative artwork that explores the concept of novel imaginary (digital) cities, (digital) landscapes, (digital) maps and (digital) archives. The artwork uses geographical point cloud data of the city of Brussels. Point clouds are large data sets derived from raw data scanned from physical objects such as buildings, topographies, interiors,... In this installation the geographical data is radically reinterpreted and sonified through machine learning. The resulting artwork is a continuously evolving city landscape using machine learning to create unprecedented digital landscapes and architectural forms. De Wilde challenges us to think critically about automation, authorship and the role of radical novel technologies in the re-conceptualisation of our cities.

FREDERIK DE WILDE (°1975, BE)
LIVES AND WORKS IN BRUSSELS (BE)

Frederik De Wilde works at the crossroads of art, science and technology. The conceptual cornerstones of his artistic praxis are the notions of the invisible, inaudible and intangible. He is fascinated by 'dark' ecologies and the radical shifts technology imposes on society, mankind and our environment. De Wilde considers art as a mirror in which society is reflected as well as a hammer that shapes it. He relentlessly 'fights' in favour of radical openness in his crossover praxis and life, reaching out to the individual as well as communities. He often collaborates with scientists and universities (e.g., Rice University), institutions (e.g., NASA) and industry (e.g. MERCK) worldwide and is best known for his pioneering 'blackest-black art'.



Maarten Vanden Eynde

05

Cosmic Connection 2016

Several thousands of satellites are in orbit around Earth, but only a very small fraction is still working. *Cosmic Connection* visualises a Utopian attempt in the far future to reconnect to the sky. Remnants of the technological revolution (in the form of circuit boards of telephones and computers) are soldered together to form a possible receiver for signals from lost satellites. It also draws inspiration from humanities eternal search for other life forms in the Universe and looks at our own origin and evolution as stardust. Seen from above the succession of technological remnants resembles a map of a contemporary city saturated with novel technologies and electronics.

Metal, recycled telephone and computer circuit boards
10 x 130 x 130 cm / Courtesy of Galila's Collection, Belgium

MAARTEN VANDEN EYNDE (°1977, BE)
LIVES AND WORKS IN BRUSSELS (BE) AND SAINT MIHIEL (FR)

Maarten Vanden Eynde's practice is embedded in long term research projects that focus on numerous subjects of social and political relevance such as post-industrialism, capitalism and ecology. Currently Vanden Eynde is investigating the influence of transatlantic trade of pivotal materials like rubber, oil, ivory, copper, cotton and uranium, on the evolution of human kind, the creation of nations and other global power structures. The project *Triangular Trade* traces back the origin of the different materials and follows their (r)evolutionary path as they are processed and transformed into «world changing wonders». In 2005 he founded Enough Room for Space (ERforS), an interdependent art initiative that initiates and coordinates events, residencies, research projects and exhibitions worldwide, together with Marjolijn Dijkman. Vanden Eynde is represented by Meessen De Clercq in Brussels (BE).



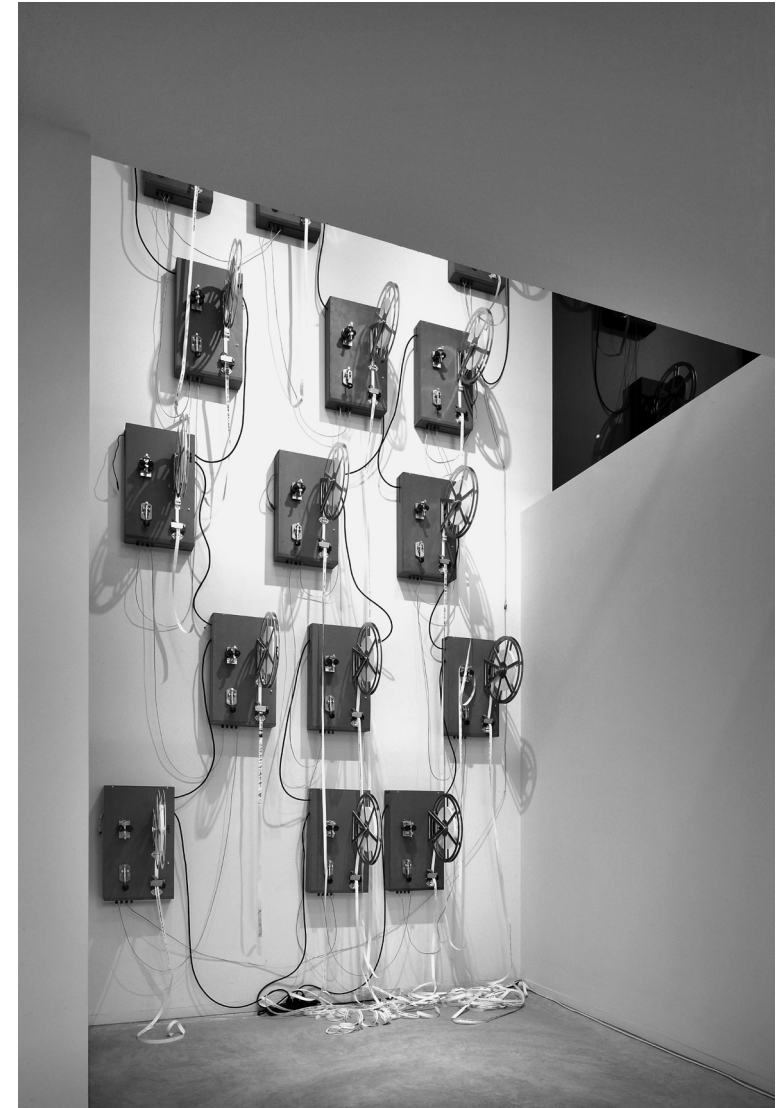
What hath God wrought 2016

Installation / Dimensions variable
Courtesy of the Artists

The title of the installation is a line from the Book of Numbers, written in early modern English. It was the first message transmitted by telegraph in 1844, the first communication technology on the basis of electricity and binary coding. The artwork is fed by the 100 most used words in Thomas More's book 'Utopia', feeding the correspondence between a series of telegraphs. The telegraphs translate the words into sound, kinetics and light. Written rolls of paper drift to the floor. Slowly but surely, mistakes slip into the closed system and the meaning of the words alters. The Morse orchestra deals with the rationalism of the Renaissance and its belief in progress and posits by contrast an aesthetic of a self-regulating system in which the fault rules and defect becomes beauty.

LAB[AU]
COLLECTIVE BASED IN BRUSSELS (BE)

LAb[au] is an artist collective that was founded in 1997 in Brussels. Its three members are Manuel Abendroth, Jérôme Decock and Els Vermang. They question contemporary aesthetics and semiotics, through an algorithmic approach and conceptual thinking combined with geometry, colour, light and motion. LAb[au] has already presented work among others at the Musée d'Art Contemporain (Montreal, 2015), MOMA (New York, 2014), the Biennale di Venezia (Venice, 2013), Seoul Museum of Art (Seoul, 2013), Witte de With (Rotterdam, 2006), and the New Museum (New York, 2003). They have produced several permanent artworks and their artworks can be found in public and private collections around the world.

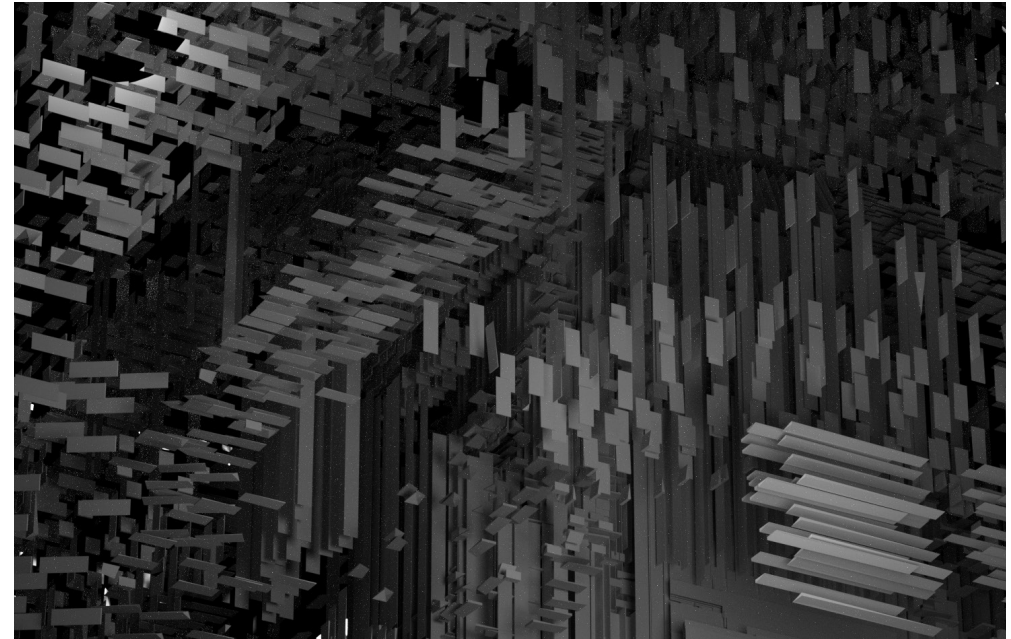


Joanie Lemerancier has created several panoramas of cities for this exhibition, following from his drawings which he produced with a robot. He creates a matrix with a code and various software applications and then delegates the actual work to the machine, which adds approximations and errors to the thousands of lines he traces on paper. *Possible Cities* is a disillusioned look at the repetitive and anonymous architecture of megacities. By using simple geometric forms, Lemerancier underscores the absurdity and the dehumanised aspect of these stacks of identical small cubes, which resemble an endless copy-paste job. Moreover, he highlights the cold, crushing aspect of some of these industrial structures, including warehouses, ports and airports. *Possible Cities* also explores the alternatives produced by space optimisation algorithms such as nesting, quadtree, and octree, albeit with a hint of naivety. Here, these algorithms, which are mainly used in the field of industry to optimise manufacturing yields, are used to imagine a new utopian city of the future.

Unique drawings on paper made by a robot / 50 x 65 cm
Courtesy of the Artist

JOANIE LEMERANCIER, (°1981, FR)
LIVES AND WORKS IN BRUSSELS (BE)

In his work, Joanie Lemerancier toys with the spectator's visual perception: he creates an upheaval in space, perturbing our senses, with pared down sleek structures and light projections. In 2008, he co-founded the AntiVJ visual label with Yannick Jacquet, Romain Tardy and Olivier Ratsi. Together they have created installations for various festivals, developing specific projects with sound artists and creating various architectural mappings. Since 2013, Lemerancier works in his own studio in Brussels, dedicating his time to the conception of installations and works that are specifically created for museums.

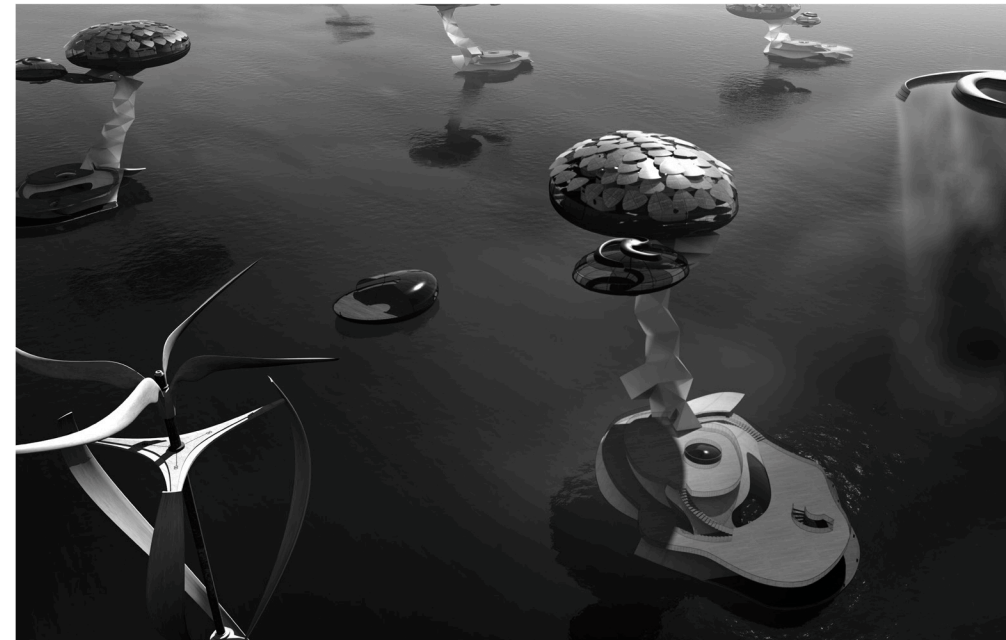


Invisible Cities is a tetralogy, comprising various portraits of Japanese cities, namely Tokyo, Yokohama, Osaka and Kyoto. In this film cycle, real imagery – filmed and photographed – is superposed over computer generated imagery, echoing contemporary Japan in which reality and the virtual world constantly encounter and blend in with each other. *Invisible Cities* ends with a film called *Stations*, which is a journey through the countryside around Osaka, the Kansai. It features a virtual reconstruction of the world expo in Osaka in 1970, the architecture of which was the epitome of Metabolism. This utopian movement, which was launched by Japanese architects and artists in the Sixties, helped underscore the belief in technology as a source of progress in the public's imagination. After crossing through Kyoto, we will discover 'Biwako Machi', a virtual smart city that was 'built' on the banks of Lake Biwa, according to the principles of the Kyoto Protocol. This city, which consists of habitable units, is supplied with wind, hydraulic and solar energy and uses novel information and communication technologies to regulate its energy flows. The juxtaposition of these two utopias, i.e. the metabolist movement in modern times and the other utopia which is so much more in tune with 21st century ecological concerns, allows us to see how societal challenges have evolved in the past fifty years. 'Biwako Machi', which the artist designed with the architect Manuel Tardits, questions whether smart cities could provide an urban planning answer in the Anthropocene era.

PIERRE JEAN GILOUX (*1965, FR)

Pierre Jean Giloux's work is at the crossroads of several practices: still and animated images, installations that probe space and volume. His films are the outcome of associations and hybridisations of media, using digital technology, in which he develops visual and sound compositions. In some cases, he even includes animated 2 and 3D sequences. The boundaries between computer generated and real images thus fade, giving the spectator free rein to invent his own narrative. In his films, the real world and the virtual world co-exist, engaging in a dialogue and questioning their limits, especially in his immersive installations, using a multi-screen device, which the spectator is invited to walk through.

Colour video, sound, Full HD, 15'15"
Courtesy of the Artist



Christoph De Boeck 09

Waveform by Christoph De Boeck addresses the post-war world of the 20th century, marked by urban growth and the consequent expansion of steel. The expansion of steel enhanced the power of mankind to control the circulation of people and goods, with an unprecedented rise of infrastructures as a result. When solid materials such as steel suffer from tension they generate ultra-acoustic emissions causing the material's molecules to break apart. When the material under stress relaxes this results in an inaudible ultrasonic crack. In *Waveform* a salt vapor corrodes a steel sheet that bends under a load. Acoustic emissions are captured, scaled down and amplified in real time as pitting corrosion progresses. Many tunnels, bridges and industrial installations are monitored by acoustic methods to evaluate their condition. However, maintenance of critical twentieth century infrastructures has been affected by austerity and budget limitations in today's economies. By amplifying the sound of the corrosion process, *Waveform* reveals the transformative nature of material itself, questioning the fabricated stability of the platforms, vessels and passageways it carries. *Waveform* was created in collaboration with the *Department of Metal and Material Engineering* at KU Leuven.

CHRISTOPH DE BOECK (°1972, BE)
LIVES IN ANTWERP (BE) AND WORKS IN BRUSSELS (BE)

Christoph De Boeck creates visual sound installations. In his installations sound becomes as an articulation of energy. Surfaces resonate and sound sources are spatially arranged to create an image that is both visually and sonically coherent. Sound – both a spectrum and a spectre – maps the immaterialities that our world produces. Recently De Boeck started to focus on how stress or tension leave acoustic traces on materials, i.e., in infrastructure cracks that are revealed by ultra-acoustic technology. The way in which he organises the acoustic material makes reference to our human world, under ever-increasing pressure. Christoph De Boeck is the co-director of *vzw Overtoon*, a Brussels-based artist-run platform for research, production and distribution of sound art and sound-based installation art or experimental media art.

Waveform 2016–2017

120 x 120 x 60 cm / Coproduced by Overtoon, Festival van Vlaanderen Kortrijk and Centrale For Contemporary Art Brussels / Courtesy of the Artist.



Beat Streuli

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The flow of time in uncommented movements, a smooth, gliding motion: where are they going and where do they want to go? Streuli does not ask such questions. Instead he observes, and in the process inspires a desire to be immersed, to understand the dynamics of our restless modern era. *Clémenceau 10-08-06* shows the Brussels just outside his front door – a place where people from all around the globe assemble and sometimes blend into a homogenous mass, despite their different international identities. The observer has to decide what is worth looking at: what is important or unimportant. The act of watching and observing is provoked, yet the nature of the intention remains unclear. Unfiltered seeing and recording are the main ingredients in Streuli's beguiling installations in which urban space becomes a system in which the individual overlaps with the collective.

BEAT STREULI (°1957, CH)
LIVES AND WORKS IN ZURICH (CH) AND BRUSSELS (BE)

Beat Streuli uses photography and video to create works of striking visual impact. Since the early days of his career Streuli uses the urban environment as his stage, capturing the inhabitants and daily life in various cities around the world with a detached gaze. From 2000 onwards, following a reflection on globalisation and the resulting conflicts, Streuli became interested in the presence of non-Western cultures in the European social fabric. Currently, Streuli takes a more pictorial and increasingly abstract approach to his subjects. He is interested in the inhabitants but also in the cities as urban and architectural concepts and recently has started to work outside the world's metropolises, in suburbs and smaller cities. He develops large installations for public space by integrating new technologies and produces works that combine fixed and moving images and more recently interactivity. By staging monumental installations of these large-scale photographic tableaux in museums and other public spaces, Streuli raises questions about identity and representation in the modern metropolis. Streuli's first major solo exhibition took place in 1990 at the Helmhaus in Zurich. He has also had solo shows at the Tate Gallery, London (1997); Stedelijk Museum, Amsterdam (2000); and Palais de Tokyo, Paris (2002). Permanent installations of Streuli's photographs are on display at the Lufthansa Aviation Center at Frankfurt International Airport, Dallas/Fort Worth International Airport, and Gent St-Pieters station, among others.

Clémenceau 10-08-06 2006

HD video, silent, 42' / Courtesy of the Artist



Julien Maire

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Daisy Chain

2018

Daisy Chain is a conference-performance on the nature of spectacular practices. Today, technology has succeeded in surpassing even the wildest dreams of 19th and 20th century magicians. Virtual and wireless technologies have replaced the dexterity of fingers and mechanical ingenuity to cause astonishment and wonder. In this performance, Julien Maire presents a parallel history of the resources that were used to create spectacular effects. While this gives rise to some disillusion here and there, Maire succeeds in painting a humorous portrait of the electronic illusionist.

Performance, 35' / Coproduced by the Fédération Wallonie-Bruxelles
– Cellule arts numériques and iMal / Courtesy of the Artist

JULIEN MAIRE (°1969, FR)
LIVES AND WORKS IN BRUSSELS (BE)

Julien Maire is a new media artist. Since the mid-90s, he has been working at the crossroads of performance, installation and film. He creates performative work on the boundaries of genres and media, exploring the materiality of the moving image for the most part. His installations and performances have been presented internationally at Ars Electronica, Digital Art Festival, European Media Art Festival, Rotterdam Film Festival, Sonar, Transmediale, ZKM, etc. In 2008, he was awarded with the NTAA award (Update_2 biennial). He was nominated for the World Technology Award in New York in 2009.



CONFERENCE

Tuesday
23 October,
3 – 5 pm
MAAT I
Main Gallery

To accompany the exhibition *For A Brave New Brussels* at MAAT's Main Gallery, Brussels-based artists, scientists, scholars, curators and policymakers come together and discuss the role that art can play in the creation of our future cities. What new approaches to art in the public realm are being explored and what effect are they having on our cities? In this conference diverse Brussels-based experts from various fields and artists will explore the possibilities for greater collaboration between the arts and non-artistic stakeholders leading to development of more inspiring, original and human-centred cities.

3:00 – 3:15 PM
INTRODUCTION
BY PAUL DUJARDIN

Paul Dujardin (BE) is CEO and artistic director of the Centre for Fine Arts (BOZAR) in Brussels since 2002. Under his direction the Centre has turned into an internationally recognised, multidisciplinary and interdisciplinary arts center, offering a wide range of events, from concerts, to exhibitions, cinema, literature, theatre, dance performances or debates and workshops for its audiences. The Centre for Fine Arts stands not only for the classical 'fine' arts and the esthetical and socio-cultural aspects of art; through the new department for Art & Research and the BOZAR LAB programme it also focusses upon the larger context of art, science and technology collaborations and their spill over potential for other fields, from town planning to social innovation, media, education or ICT's. This results in many debates and exhibitions on the still complicated relationships between art, science and technology.

3:15 – 3:45 PM
KEYNOTE
BY ELS VERMANG

Els Vermang (BE) is part of the artist trio LAB[au] with Manuel Abendroth and Jérôme Decock. They question contemporary aesthetics and semiotics, though an algorithmic and conceptual thinking while bringing into play geometry, color, light and motion. Together with Manuel Abendroth Els Vermang curates Société, an exhibition space in Molenbeek (BE) establishing a dialogue between algorithmic and conceptual art. In her talk she will present past and upcoming artistic realizations for the built environment.

3:45 – 4:00 PM
BREAK

4:00 – 4:15 PM
KEYNOTE
BY KATRIEN MONDT

Katrien Mondt (BE) is General Director of Innoviris, the Brussels Institute for Research and Innovation. The mission of Innoviris is to support and stimulate research, development and innovation in and for Brussels through the funding of innovative projects by companies, research organisations and the non-commercial sector. In this keynote, Katrien Mondt will highlight the necessity for municipalities to respond to today's urban challenges by supporting collaborations between architects, entrepreneurs, artist and creative thinkers.

4:15 – 4:45 PM
PANEL
DISCUSSION

Panel discussion on the collaborative project *Resistance Transistor* With Jan De Cock (Artist), Frank Raes (climatologist) and David Surprenant (interactive developer). Moderation by Christophe De Jaeger (Director Gluon/Coordinator BOZAR Lab)

Within the framework of the *Scientist in Residence Programme*, artist Jan de Cock (BE) has invited climatologist Frank Raes (BE) and interactive developer David Surprenant (CA) to his studio for a new collaboration. Currently at the stage of prototype, *Resistance Transistor*, aims at raising awareness on climate change while fostering a feeling of empathy towards nature. In this presentation Jan De Cock and Frank Raes will present the project and delve into their collaborative process.

4:45 – 5:00 PM
CLOSING REMARKS
KEYNOTE EURICO NEVES

Eurico Neves (PT) is CEO of INOVA+ Innovation Services, a leading player in Innovation in Europe, partner of the project VERTIGO (STARTS Residencies) and coordinator of STARTS Ecosystem project that will start next year to support the STARTS community. In his talk he will introduce the STARTS (Science, Technology and the Arts) initiative of the European Commission and why the Arts are important for Europe's competitiveness, innovation and research.

GLUON

Gluon is a platform for art, science and technology that is based in Brussels, Belgium. Since its inception, Gluon has raised awareness about global challenges. A flourishing society builds on a balanced interaction between humans, their technological achievements and the natural environment which we depend on. At Gluon we believe that interactions between experts from different sectors and artists are vital as part of a shared quest for solutions to the challenges that affect this system. To this end, Gluon developed a platform that maximises collaborations and confrontations between artists, researchers, industrialists, young people and active citizens. Gluon connects artists with researchers in universities, research institutions and companies. At the same time, it also provides support for residencies of scientists in the studios of artists. These interactions can give rise to artistic and philosophical outcomes or innovative ideas, services and products in non-artistic sectors, such as education, health care, ecology, cultural diplomacy and community building. Gluon realizes its programme in collaboration with a growing number of partners in Belgium and abroad, such as; the Centre For Fine Arts (BOZAR, Brussels), Erasmus Hogeschool Brussel (EhB, Brussels), iMal (Brussels), Budafabriek (Kortrijk), Vooruit (Ghent), Zebrastraat (Ghent), Ars Electronica (Linz, Austria) and the STARTS program of the European Commission. These alliances pave the way for exhibitions, workshops, residencies for artists in companies and universities and an educational STARTS (Science, Technology & Arts) programme for youngsters between 14 and 18 years old.

www.gluon.be

BOZAR

The Centre for Fine Arts of Brussels (BOZAR) is Belgium's largest cultural institution, welcoming more than 1,1 million visitors each year to nearly six thousand events in our building designed by Victor Horta. In the past 15 years BOZAR has been transformed into a multidisciplinary platform for contemporary intercultural dialogue in the heart of Europe, with a European and international mission guided by a commitment to artistic excellence. BOZAR's mission manifests itself through exhibitions, concerts and events that offer a critical reflection on the legacy of cultural and political relations between different regions and nation states, in order to build trust through understanding between citizens, policy makers and cultural actors in Brussels and beyond.

This is achieved through interdisciplinary programming initiatives that develop innovative artistic projects co-created in collaboration with a large network of cultural institutions and artists. In doing so, these projects explore geopolitical issues, thus enlarges the debate, engaging diverse audiences and opening up perspectives that challenge existing narratives. The ultimate objective is to bridge geographic and mental divisions, cultures and influences, and in doing so to create new artistic forms and discourses.

BOZAR Lab is a department within BOZAR that explores how new technologies can affect museum the experience and its audiences. It works at the intersection of BOZAR's different disciplines (visual arts, music, cinema, theatre, literature) and transversal programmes. BOZAR Lab connects the different artistic departments and its many cultural artistic partners with innovative companies, start-ups, experts and researchers in the field of science and technology. BOZAR Lab consists of three different pillars: the residency programme, the exhibition programme and the reflection platform. Through these pillars, BOZAR Lab nourishes hybrid links between its artistic and technological stakeholders and fosters creativity, critical reflection and innovation in the fields of art, culture, science and technology.

www.bozar.be

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Participating artists

AnneMarie Maes, Pierre Jean Giloux, Jan De Cock, Frederik De Wilde, Joanie Lemerrier, Julien Maire, Maarten Vanden Eynde, Christoph De Boeck, LAB[au], Beat Streuli, Younes Baba-Ali

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