S+T+ARTS RESIDENCIES

"Adding socio-economic value to industry through the integration of artists in research and open innovation processes"

Selection of Residencies / Fellowships - Year 3

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Disclaimer:

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Executive Summary

This deliverable provides a full description of the STARTS Residencies selection process for its third and last call published in 2018. It specifies all the formal elements of the selection process, and explains the choices and decisions made in the process of its elaboration in relation to the other VERTIGO work packages.

The content of this deliverable gives also statistics relative to the third call for residencies. These data can help to better understand the audience of the calls, and to better tune future ones. Finally, it gives some insights of the third Jury that can be used for a better definition of further selection process calls.

The whole process has been operated on the VERTIGO STARTS platform. The figures and tables shown in this document are extracted from the data of the platform. The use of the platform has been supporting the whole process from the submission of applications to the final decision since for the first time the Ulysses functions for applications and evaluation were embedded into it.

The core part of this deliverable is dedicated to a synthesis of the selection process of the third call (Section 1). The other sections detail each step of the selection process, namely: i) selection of the Jury, ii) the review by the Tech-Projects coordinators, iii) the online Jury evaluation, iv) pre-selection and, v) the final decision. The annexes contain the official results of the third call for residencies (Annex 1), the announcement of the selected residencies (Annex 2), the non-disclosure agreement signed by all Jury members and reviewers (Annex 3), the program note given to the Jury during the Jury meeting, containing the Jury program (Annex 4) and the minutes (Annex 5).

SECTION 1 – Process of selection of the Third STARTS Residencies call

The process of selection of the third STARTS Residencies call, as part of WP4, was conducted in close interaction with tasks of other work packages, including WP1 T1.2 – Outreach to Tech projects and initiatives providing the selection of projects for the call, WP2 T2.1 – Co-creation methodology defining the principles applicable to the call, and WP3 - T3.2-Specification and development of web platform as a support of publication of the call.

Tightly coupled to the design of the co-creation methodology, the selection process has been defined before the first call and shares the same process.

The objective was to announce the results of the third selection, on March 28th 2019, simultaneously as part of a specific event of STARTS Residencies Days 2019 in Centre Georges Pompidou, Paris, France, and in the project web site. The selection process is composed of the selection of the Jury (Step 1), the online review by the Tech-Projects coordinators (Step 2), i.e. an online review for the corresponding applications; the online Jury evaluation of all the applications (Step 3), done by the Jury online; the pre-selection (Step 4) done by the Jury during the Jury meeting; and the final decision (Step 5), done by the Jury and agreeing on the resulting selection. All the process had to converge in a delay (2 months) after the closure of the third call for residency; however, this fact does not jeopardize the overall implementation of the third cycle of residencies.

An intensive work was performed as part of the concerned work packages (WP4, WP3, WP2, WP1) and in close coordination between them, enabling to converge to the online publication of the results for the official public event of March 29th 2019.

Schedule of the third call for residencies

- March 12, 2018: Call for Tech Projects and for Producers
- **[Step 1] July 13, 2018: composition and invitation of the Jury**
    - July 13, 2018: Call platform created and tested with improved call presentation
    - September 3, 2018: Opening of the call for Artists, call for joint proposals Artist + Producer
    - October 31, 2018: Closing of the call for Tech Projects; 72 Tech Projects selected (by VERTIGO internal Project Selection Committee) and notification to the selected Tech Project coordinators of the evaluation process
    - November 19, 2018: Deadline extension of the call for Artists
    - November 28, 2018: Closing of the call for Artists
- **[Step 2] December 3, 2018: Opening of the review by the Tech-Projects coordinators**

  - Signing of the Non-Disclosure Agreement (NDA) by the concerned Tech Project coordinators.
  - December 21, 2018: Deadline extension for the review by the Tech-Projects coordinators
  - **January 4, 2019: Closing of the review by the Tech-Projects coordinators**
- **[Step 3] January 14, 2019: Opening of the Jury online evaluation.**
  - Signing of the NDA by the Jury members.
  - **January 31, 2019:** Deadline extension for the Jury online evaluation
  - **February 7, 2019: Closing of the Jury online evaluation.**
- **[Step 4] February 12, 2019: Jury meeting - Pre-selection**
- **[Step 5] February 13, 2019: Jury meeting - Final selection and decision**
- February 26, 2019: Confirmation of all the parties
- February 26, 2019: Distribution of residencies between partners in charge of following-up the residencies (IRCAM, ArtShare, INOVA+, EPFL)
- **March 28, 2019: Public announcement of the winners during STARTS Residencies Days**
- June 30, 2019: Submission of D4.4

Applications

At the closure of the call for Artists, a total of 164 completed applications were received, addressing 51 Tech Projects out of 72 available. One Tech Project (Sounds for Coma) gathered 27 applications from Artists. One Tech Project coordinator, who could be a researcher or another type of expert in the project, represents a corresponding Tech Project.

Applications – Tech Projects

This third call included 72 Tech Projects, including both H2020 research projects and industrial and/or private projects funded by companies, from which 9 projects were already selected in previous calls. The image below (Figure 1), compares the available projects in the call with the projects related to the residencies selected for the call. These charts reflect the various ICT fields approached by the candidate projects available in regards to the technology developed and to the application fields.

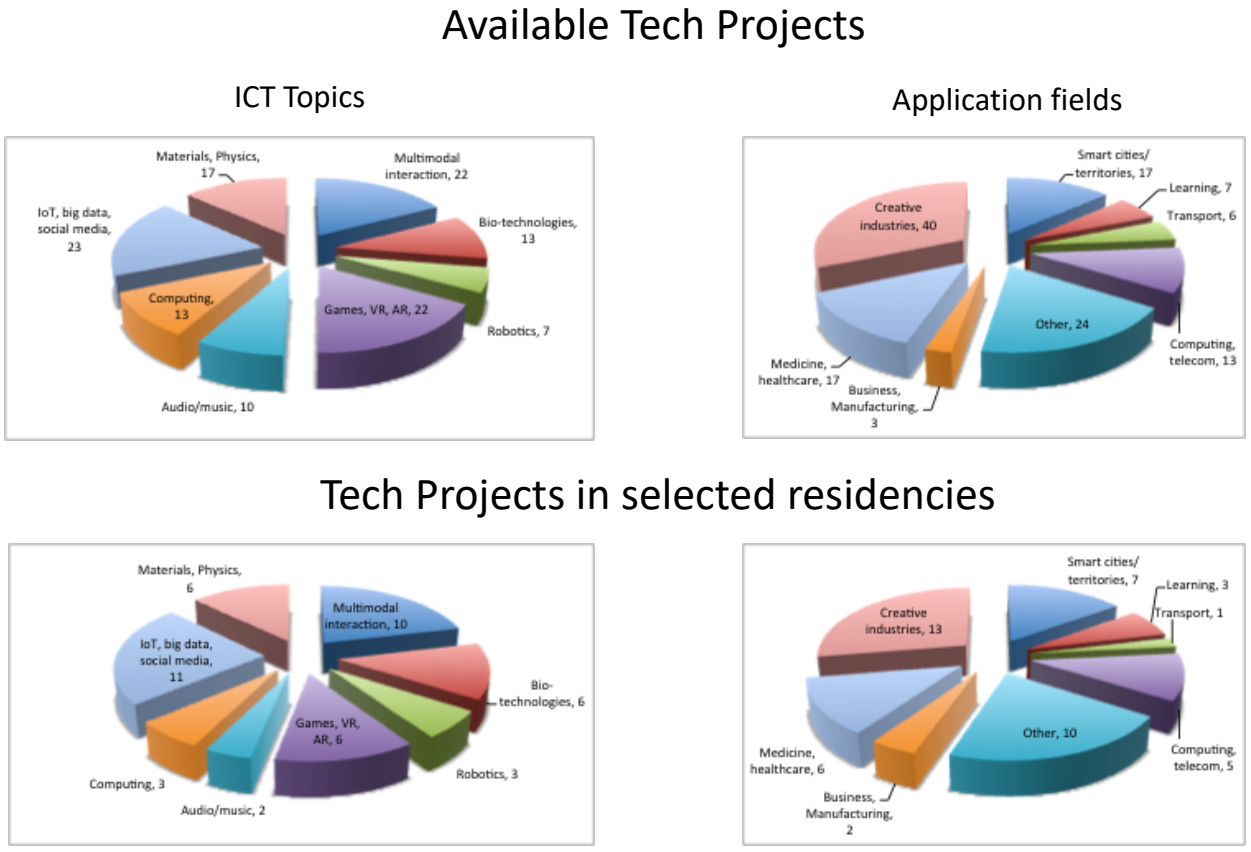

Figure 1: Distribution of the Tech Projects before and after the selection for Call 3.

These charts show that the distribution of ICT topics and application fields in the selected residencies reflects globally the distribution of all the projects available to the Artists.

More details on the projects selection process for this call are given in deliverable D1.4 - Report on Outreach to ICT Projects - Year 2.

The number of artistic applications *per* Tech Projects varied (Figure 2). For instance, the "Sounds for Coma" project received 27 applications whereas the "Art Antenna" project gathered only one application. The 164 applications submitted by Artists addressed only 51 of the 72 Tech Projects available in the call.

Tech project	Nb
Sounds for Coma	27
Immersia platform	11
MODI	8
vvvv	7
Shapes	5
LEVITATE	5
3DMP Living	5
RIVAS	4
OM7/om-spat	4
MOVE + MOving uniVersE	4
Interactive Wear	4
HaptIVR	4
BeCoMe	4
ARTE_SPES	4
ARESP	4
0W1 experience	4
MARTA	3
InSCOPE	3
GOPROSOCIAL	3
FIM	3
ChromDesign	3
AV360XP	3
ARCHES	3
Applied photosynthesis	3
3D PIVOT	3
[ARSmartist]	3
MAGIC SHOES	2
IwR	2
INSIDER	2
Eyes on Mars	2
Eco-SESA	2

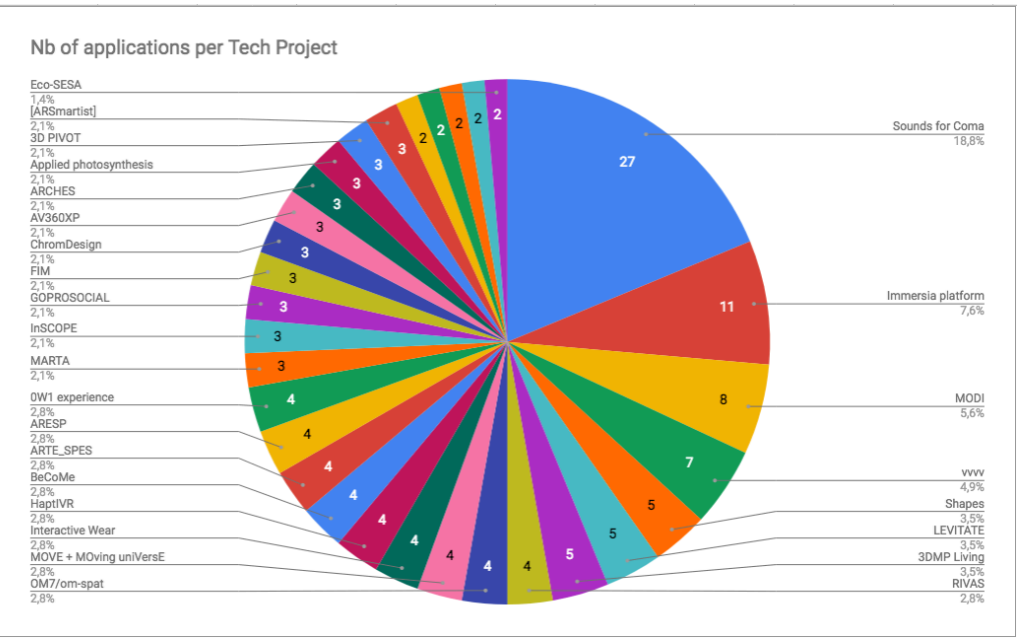

Figure 2: Number of applications per Tech Projects

Applications – Orphan Tech Projects

Following the above, a total of 21 Tech Projects remained orphan, which means that no application from Artists was addressed to these projects:

- [AEDA] Artful Exploration for Data Analysis (orphan from call 2 and 3)
- ALAMIRE SOUND LAB - An exploration of spatial sound reproduction
- AutoDrive
- BigDataGrapes: Big Data to Enable Global Disruption of the Grapevine-powered Industries
- Car2Human (orphan from call 1 and 3)
- Computing with the colours of the rainbow
- CREATE - Compact REtrofit Advanced Thermal Energy storage
- dekOLED + Realization of a touch-functionalized OLED surface via film-insert-molding
- Digital Repository of Ireland (DRI)
- INSENSION (orphan from call 2 and 3)
- iqClock - Integrated Quantum Clock
- KC - Kreyon City
- Look, touch and feel - How surfaces can influence our emotions in future cars
- Magscopy - Super-high resolution magnetic imaging for immunohistochemistry
- MARCONI - Multimedia and Augmented Radio Creation: Online, iNteractive, Individual
- MechALife - Mechanized Assisted Life
- Mobility.E
- QUA-ND-O - Intracellular Quantum Sensing Techniques for Personalized Medicines of Neurodegenerative Diseases

- SafeLog
- SHIE | Sea of Histories - Immersive Experience
- Smart Rural Areas - (orphan from call 1, 2 and 3)

Applications - Knowing the Artists

To better understand the community of Artists interested in the STARTS residencies programme, the applications were analysed in terms of gender and nationality of the Artists applying to the call.

Regarding gender (Figure 3), the call was almost gender-balanced, with 59% of the artistic applications coming from men and 41% from women.

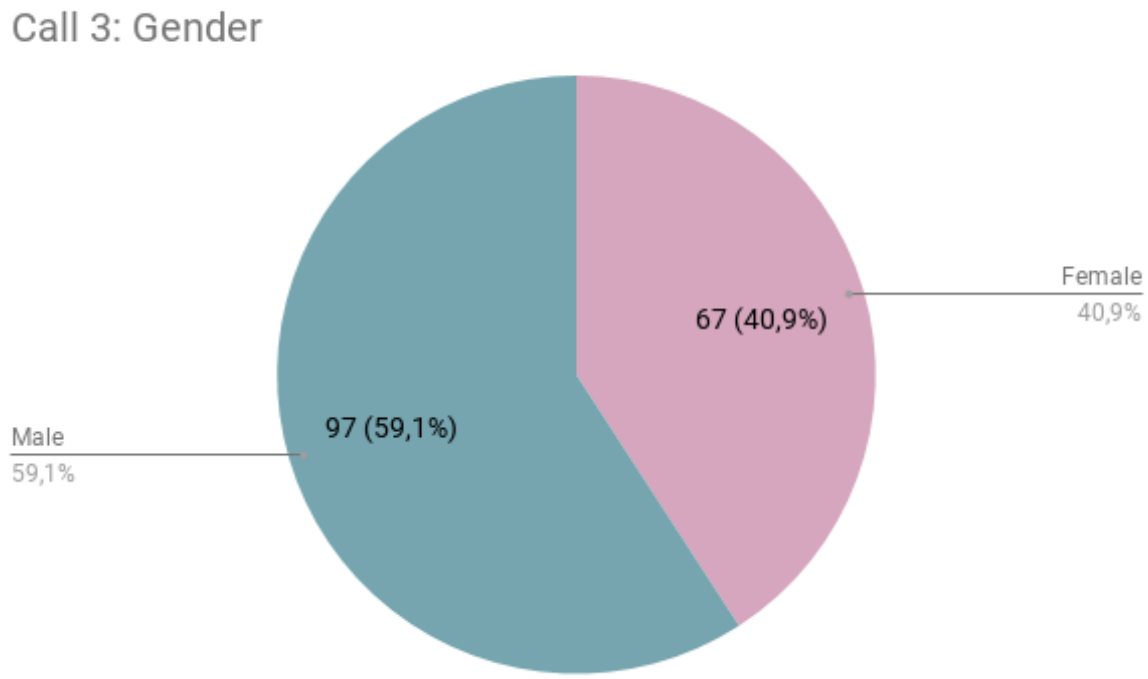

Figure 3: Gender of the applicants

Regarding the origin of Artists applying to the call, and considering their nationality, it can be observed that most of them are from European countries (Figure 4). Nonetheless, it is interesting to verify that the STARTS Residencies call raised the attention overseas, with applications being submitted by, just to name a few, North American, Russian, Brazilian and Australian Artists.

Continent	*Country*	Nb
Europe	Germany	34
Europe	France	32
Europe	UK	18
America North	USA	8
Europe	Spain	6
Europe	Italy	6
Europe	Belgium	6
America North	Canada	5
Europe	Austria	5
Europe	Portugal	4
Europe	Slovenia	3
Asia	Russia	3
Europe	Netherlands	3
Europe	Ireland	3
Europe	Denmark	3
America South	Brazil	3
Oceania	Australia	3
Europe	Switzerland	2
Europe	Poland	2
Europe	Lithuania	2
Europe	Greece	2
Europe	Estonia	2
Asia	South Korea	1
Europe	Serbia	1
Oceania	New Zealand	1
America South	Mexico	1
Europe	Latvia	1
Europe	Finland	1
Asia	Egypt	1
America South	Colombia	1
Asia	China	1
	Total général	**164**

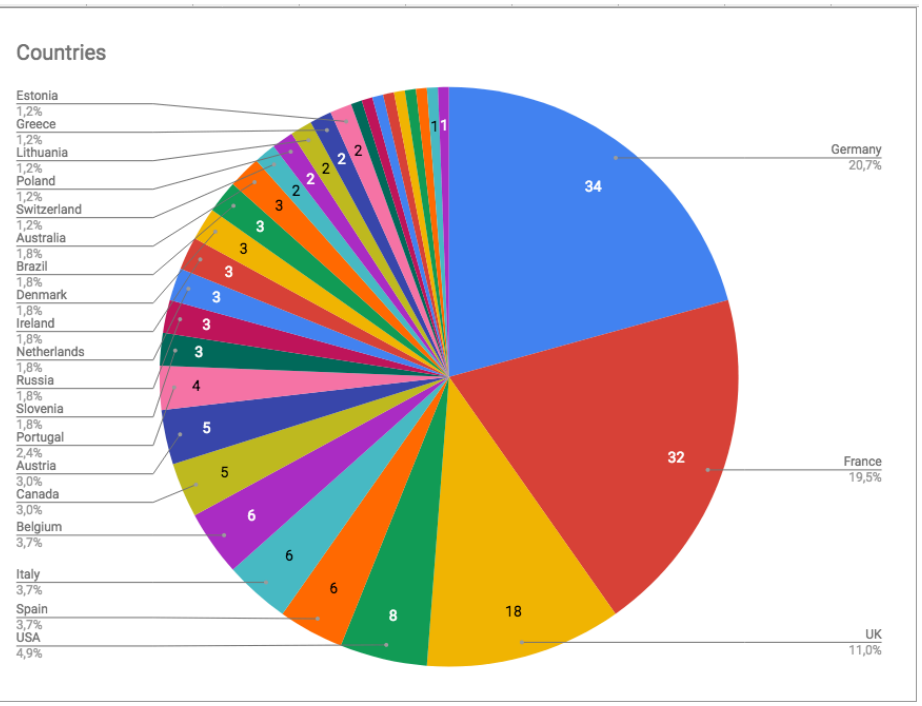

Figure 4: Nationalities of the Artists applicants

SECTION 2 - Step 1: Selection of the Jury

As defined in D4.1- Residencies Chart and Contract Template:

> *The targeted process of selection for artistic residencies will follow the rules defined in the VERTIGO Grant Agreement, including remote reviews and a final selection by a high-level international Jury made of at least 12 high-level experts representative of the various required expertise fields, at least 51% of them external to the project. It has been agreed that members of Tech projects would be solicited to participate in the remote review of the residencies applications based on their project.*

In addition to these criteria, a gender-balanced Jury, coming from various places in Europe and of various expertise covering artistic, Tech related, industry and innovation fields, has been targeted.

Some jury members from the Call 1 and 2 were willing to participate, as well, in the Call 3 Jury. Table 1 presents the final composition of the Jury, which was composed of six women and six men.

First name	Last Name	Institution	Location	Gender	Involved in VERTIGO
Camille	**Baker**	University for Creative Art	UK, Canterbury	F	NO
Marialya	**Bestougeff**	Innovation Director at CENTQUATRE-PARIS	FR, Paris	F	NO
Francesca	**Bria**	Head of Innovation Barcelona City Council	ES, Barcelona,	F	NO
Paul	**Dujardin**	Palais des Beaux-Arts de Bruxelles	BE, Brussels	M	NO
Maud	**Franca**	Caisse des dépôts	FR, Paris	F	NO
Yannick	**Hofmann**	ZKM	DE, Karlsruhe	M	NO
Martin	**Honzik**	Ars Electronica	AT, Linz	M	NO
Chris	**Julien**	WAAG	NL, Amsterdam	M	NO
Pascal	**Keiser (Chair)**	French Tech Culture	FR, Avignon	M	YES
Laurence	**Le Ny**	VP Music Infotainment Orange	FR, Paris	F	NO
Benoit	**Meaujean**	R&D Manager at Mikros Image - responsable entreprise Cap Digital	FR, Paris	M	NO
Irini	**Papadimitrou**	FutureEverything	UK, Manchester	F	NO

Table 1: Composition of the international Jury for call 3

Figure 5: Group photo of the Jury in front of IRCAM

From left to right: Camille Baker, Pascal Keiser, Martin Honzig, Irini Papadimitriou, Francesca Bria, Paul Dujardin, Marialya Bestougeff, Yannick Hoffmann, Benoît Maujean, Maud Franca, Chris Julian.

SECTION 3 – Step 2 & 3: Online review process

Process

The Tech Projects' coordinators and the Jury members both used the same STARTS Residencies interface to evaluate the applications from Artists (Figure 6). The retained selection criteria are exactly those defined as part of the initial specifications in D2.1 - Co-creation Methodology.

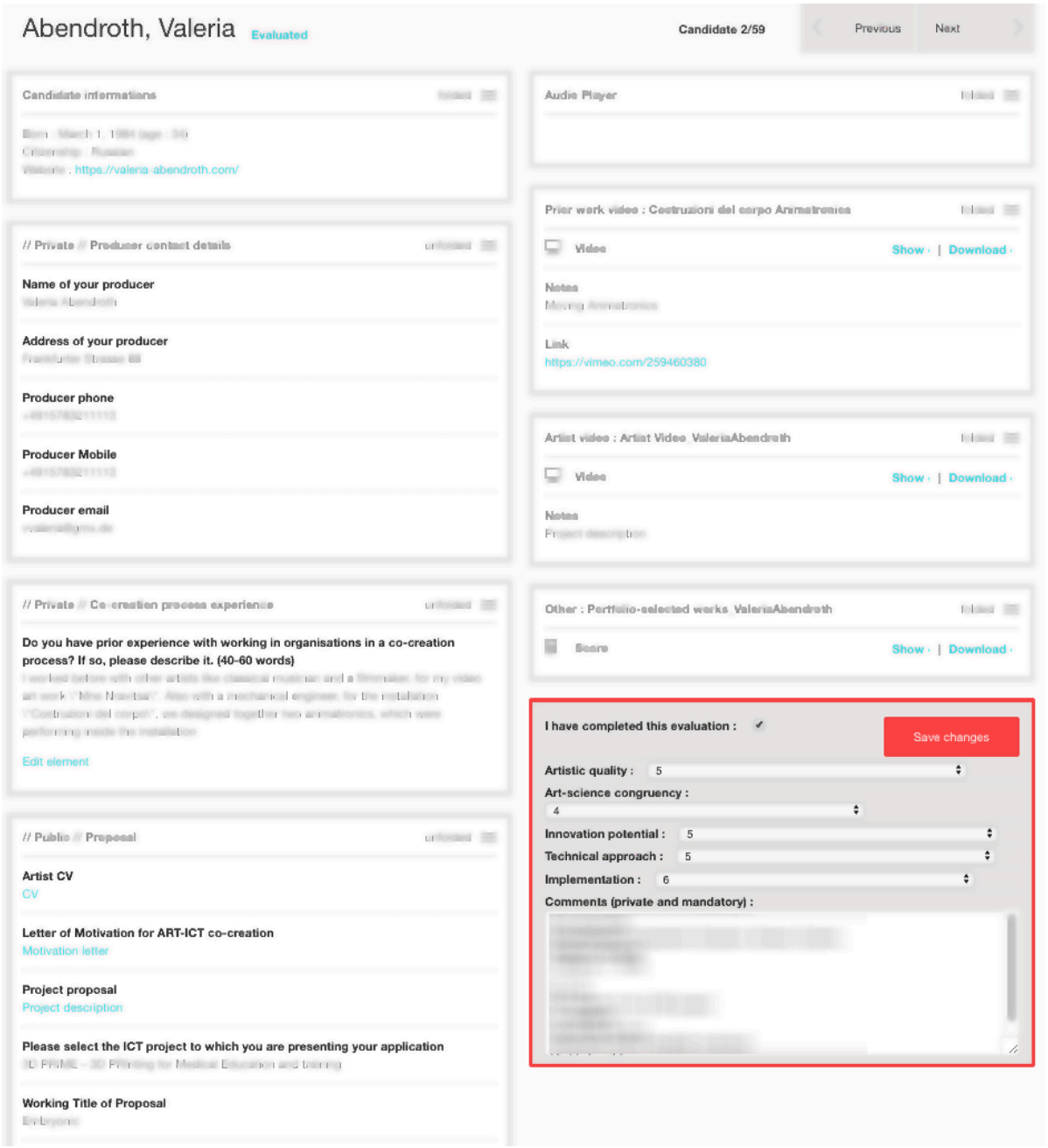

Figure 6: Interface for the Jury and for the Tech Project Coordinator online review

Results of Tech Projects reviews

The Tech Project coordinators reviewed the respective applications, which means that they assessed the artistic applications submitted as a response to the challenge launched by their Tech Project. So, some of the coordinators had only one application to review whereas others could have up to twenty-seven applications to analyse. The comments provided by the project coordinators are of most interest for the Jury decision, as well as the scoring informs about the ranking (in terms of interest), in the case there are more than one application per Tech Project.

The scores given by the Tech Projects' coordinators to each of the applications collected to their own project, resulted in a ranking of preference (Figure 7), which was later, used by the Jury in their assessment.

CANDIDATE	STATUS	GROUPS	CHOICES	RECOMMENDATIONS	ARTISTIC QUALITY	ART-SCIENCE CONGRUENCY	INNOVATION POTENTIAL	TECHNICAL APPROACH	IMPLEMENTATION
[redacted]	2 x to process 1 x completed	Aarhus City Lab	Aarhus City Lab		3.0	2.0	1.0	1.0	1.0
[redacted]	2 x to process 1 x completed	CALL2-SELECTION, DANCE PROTECT	DANCE Project		3.0	2.0	2.0	3.0	3.0
[redacted]	2 x to process 1 x completed	CONTENT4ALL	Content4All - Personalised Content Creation for the Deaf Community		3.0	1.0	2.0	1.0	2.0
[redacted]	2 x to process 1 x completed	DANCE PROTECT	DANCE Project		1.0	1.0	1.0	1.0	1.0
[redacted]	2 x to process 1 x completed	LE CUBE	LE CUBE		5.0	4.0	5.0	3.0	5.0
[redacted]	2 x to process 1 x completed	ARCHE	ARCHE [redacted]		5.0	3.0	4.0	4.0	2.0
[redacted]	2 x to process 1 x completed	DANCE PROTECT	DANCE Project		3.0	1.0	1.0	1.0	1.0
[redacted]	2 x to process 1 x completed	DATIE	DATIE - Building dense audio spatialization environment		3.0	2.0	2.0	2.0	2.0
[redacted]	2 x to process 1 x	LE CUBE	LE CUBE		1.0	1.0	1.0	1.0	1.0

Figure 7: Example of the notations done by the Tech project coordinators.

A Non-Disclosure Agreement was sent and signed by the Tech Projects' coordinators prior to their access to the platform and information of the applications.

Process of online Jury evaluation

The Jury had access to the reviews of the Tech Project coordinators from the beginning of the process (Step 3) thanks to enhancements in the web platform developed as part of WP3. This really eased the selection process and the discussion during the Jury meeting (Step 4).

For the online evaluation to be relevant, all applications had to be assessed. Furthermore, to mix the Jury evaluations, it has been planned that each application would be receiving four evaluations done by four different Jury members. Before letting the Jury proceed to the evaluation, we selected the 61 applications out of 164 by removing 103 applications previously rejected by the Tech Project reviewers. So, all the 61 applications had to be evaluated four times, giving a total of 244 evaluations. Each of the 12 Jury members received around 20 applications to be assessed in a month.

The mapping of the 244 evaluations on the 12 Jury members has been made semi-randomly (Figure 8). For the projects where more than 10 applications have been made, every Jury had one of the corresponding applications; so, every Jury member could have an overview of the most demanded Tech Projects. Then the other evaluations have been randomly mapped onto the 12 Jury members.

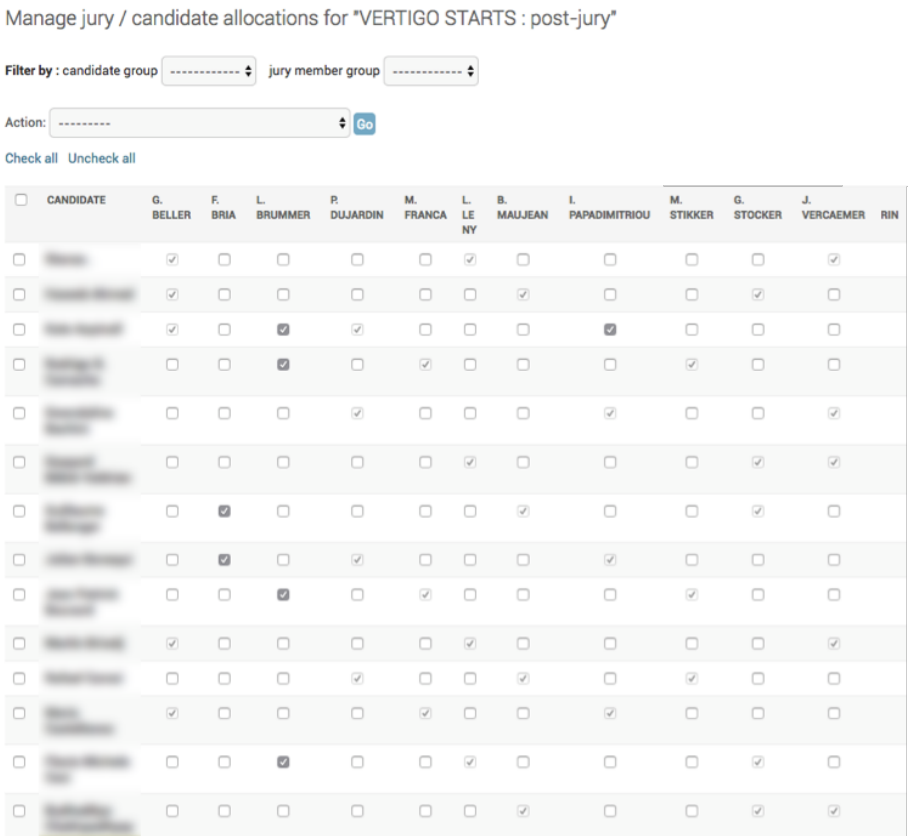

Figure 8: Example of the mapping of the evaluation to the Jury members

Results of online Jury evaluation

Thanks to last year's experience, the process was as efficient this year. The Jury had enough time for the review and less applications thanks to the pre-selection made on the platform, as a result they all reviewed 20/21 applications.

Similarly, to what was made with the Tech Project coordinators, the jury members received and signed a Non-Disclosure Agreement prior to their access to the platform and information of the

applications. As most of the jury members agreed to repeat such an experiment, they already knew the administrative process and signed the contracts in time.

SECTION 4 – Step 4: Pre-selection

Preamble

The face-to-face meeting of the Jury, which took place in Paris on February 12 and 13th, 2019, had a duration of 7 hours entirely devoted to the pre-selection phase (see the program of the Jury meeting in Annex 3). Having this, the time available for the discussion of each of application was in average of 14 minutes. The number of applications to be discussed at this Jury's meeting was of 30. Thus, a preamble of the pre-selection started by reducing the total amount of applications of 61 to 30 considering the rankings resulting from the pre-selection, on one hand by the Tech Project coordinators (Step 2) and on the other hand by the Jury (Step 3).

Process

The Jury meeting had as main objective the drawing of 3 lists, as follows:

- A primary list of 18 applications/residencies, with up to 7 belonging to the category 2 (maximum funding of 30k€).
- A secondary list or waiting list of 6 applications ranked
- A rejected list of 6 applications.

The meeting followed the list of the 30 pre-selected applications organised according to the alphabetical order of the Tech Project names. This list was presented and discussed by the Jury members, allocating 14 min for each application. The assessment of each of the applications was processed as follows:

- Sub-selection in the Jury; identification of possible conflict of interest of jury members towards any of the applications to be discussed - 1mn
- Presentation of the Tech Project by a Jury member - 1mn
    - Reading of the title, short title and abstract/expectation
- Per application:
    - Presentation of the application done by the Artist (video) – 3min (in average)
    - Reading of the comments made by the Tech Project coordinators - 1 min
    - Discussion and comment made by the Jury - 7 min
- Selection of the applications using STARTS Residencies interface - 1 min

The selection of the applications used the STARTS Residencies platform again, but with a different mode of scoring than Step 2 and Step 3. In this Step 4, all the Jury members evaluated all the 30 applications using only one choice among the following items:

- The application belongs to the primary list (1)
- The application belongs to the secondary list (15)
- The application belongs to the rejected list (30)

Each vote has been translated into a number indicated above in parenthesis.

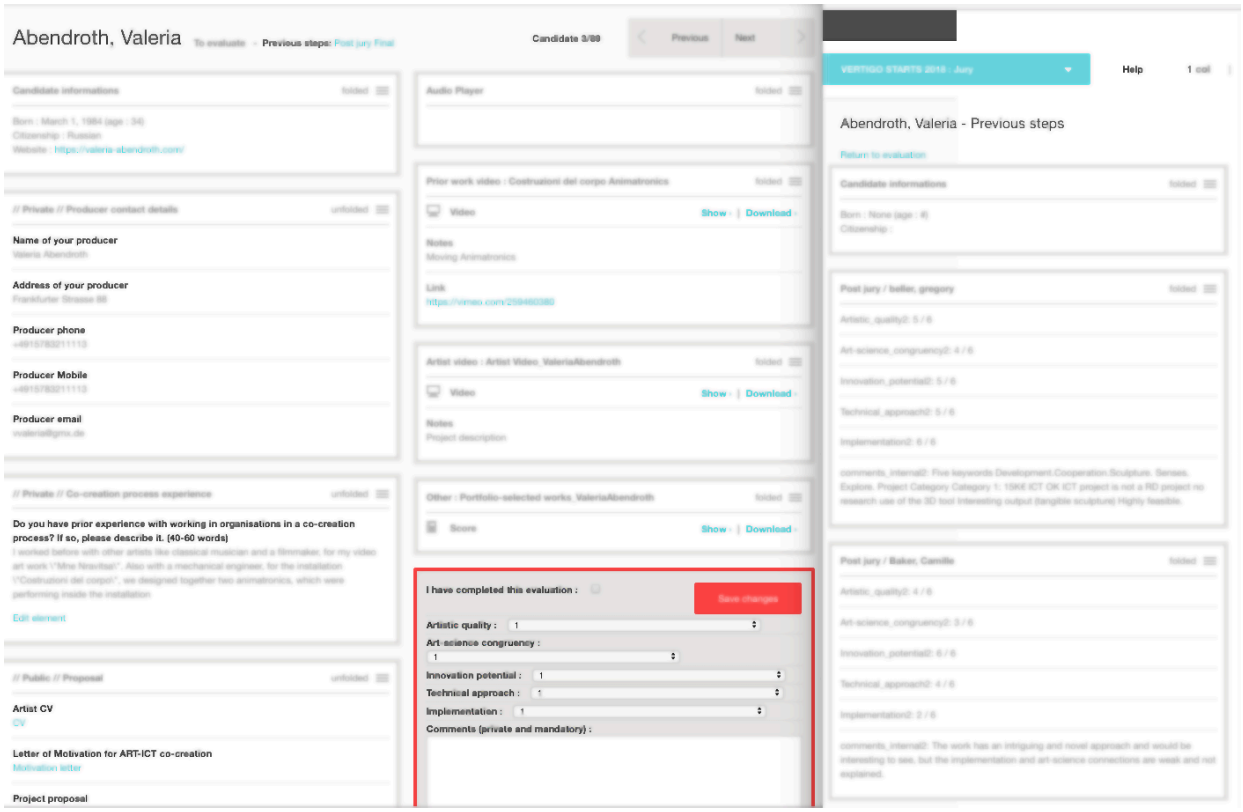

Figure 9: Selection interface of the Jury for Step 4

Some light cases of conflict of interest have been registered. It referred to an application where the artist applied together with an institution to which Jury members belonged. At the time of the discussion of that specific application, the Jury member and the STARTS partner who declared the conflict of interest did not take part in the discussion nor validate the selection in the VERTIGO STARTS interface. Especially, despite note being part of the Jury, the attending IRCAM Staff left the room when IRCAM Tech Projects were discussed, in order to avoid any influence.

Results

The numbers traducing the votes of the Jury members have been summed up to compute the ranking. At the end, the ranking computed gives information to the Jury for the final decision Step 5.

SECTION 5 – Step 5: Final selection

Process

The Jury meeting ended with the final selection, a general discussion about the results of the previous Step 4. During an hour and a half, in the following order, the Jury had:

- To validate the rejected list;
- To validate and rank the primary list;
- To rank the secondary list;
- To define the category of each project of the primarily list.

Results

The primary list has been kept as it in consensus.

The rejected list has been kept as it in consensus.

The secondary list has been kept and ranked as it in consensus.

Inside the secondary list, two project-specific waiting lists have been introduced. In the case of "Sounds for Coma" and "Become", the jury decided to implement a specific replacement process. For each of these two Tech Projects, a specific waiting list can be potentially used when the first choice (in the primary list) would not be implementable.

About the categories, some of the applications demanded category 1, 2, 2 with option to change to 1. The Jury decided to allocate the category 2 to applications that were strongly motivated, consistent, highly innovative and who required a long period of presence of the artist *in situ*. Table 2 presents the final decision made by the Jury.

Last name	First name	Tech Project	Category
Primary list (unsorted)			
Biederman	Matthew	ChipAI	1
Brevet	Thibault	IwR	2
Briscoe	Rachel	Data Stories	1
Brown	Julian	Sounds for Coma	1
d'Estienne d'Orves	Félicie	Eyes on Mars	1
Dumitriu	Anna	Human Robot Co-Mobility	2
Einbond	Aaron	OM7/om-spat	1
Kraft	Egor	Data Pitch	1
Maes	annemarie	Applied photosynthesis	2
Magalhaes	Michelle Agnes	BeCoMe	1
Pearlman	Ellen	GOPROSOCIAL	1
Peysson	Dominique	LEVITATE	2

Satomi	Mika	CONFIRM	2
Srdić	Zoran	INSIDER	2
Stanza	.	Art Antenna	1
Tursic	Miha	ARESP	2
Wierinck	Sebastien	3DMP Living	1
Zapala	Rafal	FutureLab	1
Sorted waiting list			
Vogler	Carolin	ChromDesign	1
Sinigaglia	Natan	vvvv	1
Choy	Ka Fai	MODI	1
Kuusk	Kristi	MAGIC SHOES	1
Waiting list for Sounds for Coma			
Tocher	Ali	Potential substitute for Sounds for Coma	1
Waiting list for Sounds for BeCome			
Paine	Garth	Potential substitute for BeCoMe	1

Table 2: Final jury selection with allocated categories

Post-selection validation process

Before communicating the results, laureates firstly Tech Projects and secondly Artists have been contacted to confirm their willingness to proceed. Knowing the selected Artist application, the IwR Tech Project decided to abort its participation to the program, cancelling the corresponding residency. As a consequence, the first pending residency in the waiting list (Carolin Vogler and ChromDesign) has been moved to the primary list of selected residencies.

The same applied to the Sounds for Coma Tech Project, because the proposal of the selected artistic application (Julian Brown) was finally defined as not compatible with the research project by the Tech Project coordinator. In this case, the secondary choice made by the Jury, inside the respective specific waiting list (Ali Tocher) has been proposed to the Tech Project and accepted.

Because two selected residencies from Call 2 have been officially aborted right after the Call 3 Jury selection ("Composing Music with AI" and "Qui perd gagne"), the 2nd and 3rd residencies in the waiting list (naming Natan Sinigaglia with vvvv and Ka Fai Choy with MODI) have been moved to the primary list of selected residencies in the final announcement.

The final selection announced publicly is given in Annex 1. This list was then submitted to the Consortium for entering the monitoring process. It is presented in the following section.

SECTION 6 – Description of the Selected Residencies

6.1 CYBER-SPECIES PROXIMITY

Residency category: 2

Artists: Anna Dumitriu & Alex May

Tech Project: Human Robot Co-Mobility

Producer: WAAG

A performative robotic installation exploring movement, touch, and body language for humans and robots.

Artist's short bio - ANNA DUMITRIU & ALEX MAY

Anna Dumitriu and Alex May have collaborated extensively to create interactive installations using full-size humanoid robots, biodigital robots, and swarm robots, as well as performance and video artworks. Their work has a strong focus on the ethical implications of emerging technologies created through explorations future scenarios.

Anna Dumitriu's artistic practice is deeply embedded in laboratory settings and she works with emerging technologies. She is the 2018 President of the Science and the Arts Section of the British Science Association. She holds visiting research fellowships in the School of Computer Science at the University of Hertfordshire, Brighton and Sussex Medical School, and Waag Society.

Alex May explores a wide range of digital technologies, most notably video mapping and algorithmic art. He is a Visiting Research Fellow: Artist in Residence in the School of Computer Science at the University of Hertfordshire.

http://www.myrobotcompanion.com

The Tech Project - HUMAN ROBOT CO-MOBILITY

Mobility is a key driver of the development of large urban areas and tall buildings. The level of automation during construction and operation of such urban areas is continuously increasing. Humans do not only outsource work to robots, but they also share their workspace and mobility space with them, as they serve different purposes and provide services. How does robotic automation impact the design of mobility services, buildings, smart cities and our interaction with them? Socially-aware robots will be an essential asset to design robot-augmented building services, because such services will transfomr urban areas into a co-mobility space, shared among humans and robots. The team developed multiple robot prototypes to support elevator installation or to act as an elevator service companion. The design of these prototypes, as well as their human machine interface, while functional, can still be improved to provide a superior user experience, mechanically as well as via apps, voice, or gestures.

Residency project summary - CYBER-SPECIES PROXIMITY

Anna Dumitriu and Alex May are pioneers in creating robotic artworks that performatively explore our relationships to new technologies, from HARR1, the constantly moving humanoid robot which exhibits body language and boredom, to Antisocial Swarm Robots which make explicit the human need to project life-like behaviour on robots and explore the audience's inability to deconstruct even the simplest algorithms.
They now propose to significantly develop their explorations of robotic movement through collaboration with the Human Robot Co-Mobility project creating an in-depth investigation of future co-existence with intelligent embodied robots, based on a deep investigation of human and robot interaction and movement, focussing on proximity, touch, body language and interactivity.
They aim to create a new human - robot performance experience and installation where public audiences and researchers can reflect on the current research and speculative or playful future scenarios grounded in the latest research.
Their robots will be programmed in Alex May's open source Fugio visual programming system and innovations will be shared with researchers. Working with Lucas Evers at Waag Society as producer they will ensure the widest dissemination of the final artwork through exhibitions, workshops, talks and the sharing of the processes and methodologies.

6.2 SUSPENDED MOMENT

Residency category: 2

Artist: Dominique Peysson

Tech Project: LEVITATE

Producer: Bipolar

Emergence of proto-life under our eyes: a sensitive ballet of levitated drops magically coupling then dividing.

Artist's short bio - DOMINIQUE PEYSSON

Dominique Peysson lives and works in Paris. She is a visual artist, having been a researcher in materials science. She exposes regularly in France and abroad. She has two PhD, in physics and in contemporary art, and she is also an engineer. She makes installations, videos and performances involving smart or living materials. She develops artworks which « respond » to the public or the environment thanks to responsive matter instead of numeric or electronic interactivity. Art is for her the tool to create new mental images to understand better this new vision of the world shaped by new advances in biology and technologies and to ask us the right ethical and political questions arising from new scientific discoveries. Smart or living materials can offer new forms of meetings of sensibility between people and matter. And they can be very powerful, since what we touch materially touches us emotionally in the deepest.

http://www.dominiquepeysson.net/

The Tech Project - LEVITATE

The Levitate team manipulates ultrasonic wavefronts to create levitated objects that can be seen, heard and felt.

As we move away from traditional human-computer interaction techniques like keyboards and mice towards touch (e.g., Smartphones) and touchless interfaces (e.g., Kinect) our interactions lose physicality. Both touch and touchless interactions lack a controller or interface element that provides meaningful physical feedback. The same holds for voice control interfaces.

Therefore, the team proposes a radically different system that can bring the physical interface to the user in mid-air. In their vision, the computer can control the existence, form, and appearance of complex levitating objects composed of "levitating particles". Users of this interactive display will be able to reach into the levitating matter, feel it, manipulate it, and hear how they deform it with all feedback originating from the levitating object's position in mid-air, as it would with objects in real life.

Residency project summary - SUSPENDED MOMENT

The origin of life on earth remains an unclarified mystery… and the magic of the beginning is still happening over and over again, each time two gamete meet and become a single cell, ready to grow to achieve its goal of becoming an organism in all its complexity.
Suspended moment proposes to live a particular moment out of time. The incredible ballet of two drops of complex inert matter in levitation, dancing around in a slow and fragile manner. They will finally merge, and then will start the proto-life : matter will magically divide itself and grow under our eyes. A small-scale object theater, whose image will also be projected in very large by an optical process on the ceiling. A dance in spiral mists that defies the laws of gravity. The public can simply watch the original scene, but playing god is also possible by approaching the hand and interact remotely with the drops to help or prevent them from reaching proto-life. A sound piece will fully envelop the audience, and give them the feeling to also enter levitation. An important point, since drops are maintained in the air thanks to an acoustic phenomenon.

6.3 ARTIFICIAL INTELLIGENCE AND ITS FALSE LIES

Residency category: 2

Artist: Mika Satomi

Tech Project: CONFIRM - Smart Manufacturing

"Artificial Intelligence and its False Lies" is a series of workwear/ uniform that are equipped with AI that make decisions...

Artist's short bio - MIKA SATOMI

Mika Satomi is a designer and an artist exploring the field of eTextiles, Interaction Design and Physical Computing. She has been a guest professor at the Weissensee Art Academy Berlin for five semesters.

She has worked as a researcher at the Swedish School of Textiles and at the Distance Lab, Scotland in the field of practice-based design research. She holds BA in graphic design from Tokyo Zokei University, and MA in media creation from IAMAS, Japan. Since 2006 Mika has collaborated with Hannah Perner-Wilson, forming the collective KOBAKANT creating artistic projects in the field of eTextiles and Wearable Technology Art. She is a coauthor of the e-Textile online database "How To Get What You Want".

http://www.kobakant.at/

The Tech Project - CONFIRM - SMART MANUFACTURING

The project's vision is to transform and grow Irish manufacturing by integrating intelligence within products, machines, production systems and supply chains. Smart manufacturing has been defined as "the intelligent, real-time orchestration and optimisation of physical (people and equipment), digital and business processes within factories and across the entire value chain."

The emergence of smart manufacturing is leading to a transformational change in all aspects of the supply chain, and is set to change how companies structure their manufacturing operations, and how they cooperate with suppliers and customers. Adopting the smart manufacturing transformation by understanding and addressing its challenges is critical for the long-term competitiveness of Irish industry.

Residency project summary - ARTIFICIAL INTELLIGENCE AND ITS FALSE LIES

We tend to identify ourselves with the jobs we do. It is very common to ask "what do you do?" as a communication starter when you meet someone new. Jobs are not only something we do for living, but we define ourselves with it.

The introduction of AI in our workplaces is often discussed with a slight anxiety. Is it going to abolish our jobs? Is it going to replace me in my work? Even though with the promise of shorter work hours and eliminating manual labor that nobody wants to do, with all the sustainability and economic benefits, we feel uneasy to accept giving up our labor to AI.

"Artificial Intelligence and its False Lies" is a series of workwear/ uniform that are equipped with AI that make decisions for wearers in work situations. Sensors on the uniform detects how you move and feedback to the system so it can further make decisions accordingly. The human wearer become an executor, a body for AI.

We can experiment how it feels to live with AI, how it feels to work with AI, how the decision making system of AI impact how you do things, how you incorporate and adjust.

6.4 BIOBOT

Residency category: 2

Artists: Zoran Srdić

Tech Project: INSIDER

Producer: Kapelica Gallery / Kersnikova Institute

Developing a soft tissue robot inside a specialized incubator, using a video recording

Artists' short bios - ZORAN SRDIĆ

Zoran Srdić Janežič (b. 1974) has graduated at the Fine Arts Academy in Ljubljana and works as intermedia artist and creator of puppets at the Ljubljana Puppet Theatre. In his art he uses new materials and technologies: animatronics and moving mechanisms in connection with biological materials, 3D virtual design, virtual reality installations with AR codes, sculptural work with organic materials etc. He cooperated with scientists in the field of bio- and nanotechnologies. He is the author of over 20 solo and numerous group exhibitions, performances and public interventions and the winner of the Prize for the Quality of Fine Art at the 3rd International Festival of Fine Arts Kranj in 2014. His works are a part of permanent collections or can be seen in public places. Srdić Janežič is the writer of art reviews for various magazines, and initiator, curator and producer of different art events.

http://zsj.si/

The Tech Project - INSIDER

The company develops various types of climatic chambers, ovens and freeze dryers for medical and research purposes. They also custom develop advanced technical equipment for specific needs and are always open for technological advances and innovation. With this project, the team wants to collaborate with the artist who works with biological materials to develop a specific kind of incubator that would suit his/her needs and artistic processes and presentations. A new kind of incubator with integrated microscopes and microscopic camera for enhanced visual material would be useful not only for artistic investigations but as it could also change the possibilities and ways of institutional scientific research. Through side by side collaboration with the chosen artist and by monitoring his/her artistic work, which includes the microscopic investigation of live organisms and biological processes inside an incubator, the team wants to develop a specialised and custom made prototype of equipment.

Residency project summary - BIOBOT

Art project is dedicated to soft tissue engineering and developing a robot with functioning biological muscle which moves the body. On the frontiers of art that uses live materials to create new forms, these new creatures raise ontological and ethical questions about their status, new protocols of

handling and question our attitude towards them. The line between machine and live being is once again completely blurred.

This kind of (art)work demands new conditions that are not the same to those in research science and not what we are used to in art. Hybrid processes require hybrid tools and in order to completely control the working process and fulfil the demand for a high quality microscopic visual material, we need to develop a special kind of incubator. Incubators are standard equipment when working with cells, but in art work we also need a constant video recording of the processes inside an incubator. Therefore, the team will develop, construct, test and prototype a new kind of incubator with enhanced visuals that can also be used for scientific research.

6.5 BECOMING.ECO(LOGICAL)

Residency category: 2

Artist: Špela Petrič and Miha Turšič

Tech Project: Arctur

Producer: Kapelica Gallery / Kersnikova Institute

A simulation of climate change that invites spectators to see themselves as part of the planetary image.

Artist's short bio: ŠPELA PETRIČ AND MIHA TURŠIČ

Špela Petrič and Miha Turšič have been collaborating on mutual art projects for five years, but they also maintain two separate artistic research lines. Špela is dedicated to the researching of multispecies intercognition, while Miha focuses on arts and humanities in outer space.

This proposal is an upgrade of their Future Emerging Art & Technology (FEAT) becoming.a(thing) project, where they undertook the challenge of understanding and manifesting the artistic potential of high-performance computing. As a result of the collaboration with FET-HPC the artists developed a concept liberated from the complex computational technicity to underscore the (un)intentional construction of meaning by algorithmic agencies.

https://www.spelapetric.org/

https://mihatursic.squarespace.com/

The Tech Project - ARCTUR

The supercomputer is set up and configured to achieve better computing performance and a flexible set-up to adapt to the need of a wide range of users. Traditionally, they have found applications in scientific and engineering fields which require large quantity of data to be processed, like weather forecasting and aerodynamic research. Recent applications were also established in the artistic and creative industry, thanks to the rapid advances in the area of 3D technologies. With the help of the

Supercomputer Arctur-2 and Data Center, the Arctur team is able to offer a wide variety of 3D modeling, animation and simulation tools that are otherwise unavailable to the average person due to high computing demands and large data involved. They enable rendering and remote rendering of three-dimensional visuals, and also carry out support services for interpretation, use, and re-use of 3D data and models. By using immersive visualization and augmented reality, they are also engaging in the domains of cultural heritage, tourism and education.

https://www.arctur.si/

Residency project summary - BECOMING.ECO(LOGICAL)

In a partnership with Arctur, CHE and Kersnikova Institute the artists attempt to picture the world of climate change composed with supercomputing capacities and enormous quantities of data, while providing an opportunity to the non represented environmental actors to contribute to this iconic image of the 21st century. The project is going to demonstrate embeddedness of human agency into the environmental condition and by that a transition from technological into the ecological world, where supercomputers as epistemological tools play a central role in making the world (appear) ecological.
https://www.che-project.eu

6.6 SENSORIAL SKIN

Residency category: 2

Artists: Annemarie Maes

Tech Project: Applied photosynthesis

Photosynthetic bacteria grow into a reflective shield and create a powersource for environmental sensors

Artists' short bios - ANNEMARIE MAES

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. Her recent 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.

https://annemariemaes.net

The Tech Project - APPLIED PHOTOSYNTHESIS

Photosynthetic organisms and their molecular machinery are being probed for solar fuels and solar electricity generation in a sustainable, and circular technology. A plethora of techniques, from biochemistry, light spectroscopy to electrochemistry is being applied to elucidate the possibilities and to construct devices. The project technology includes microbial fuel cells, living photosynthetic colonies that produce electricity and can power small devices. The objectives are to investigate speculative designs or proof of principle designs of biosolar cells, microbial fuel cells, or applied photosynthesis in general. These futuristic machines take the science of bioelectronics, artificial intelligence, quantum biology and solar energy to a far extreme allowing speculations on newest scientific insights, the interactions between fundamental science and society, the role of humans as biological species in preserving other species, or any other intellectual drive artists may have.

Residency project summary - SENSORIAL SKIN

This project fits within the larger objective of creating sustainable beehives, a goal which has been pursued by the artist during the past decade. She has already built a series of 'Intelligent Guerilla Beehives', sometimes in the form of speculative designs but often also physically realized and inoculated with live bee colonies. The sustainable beehive is intended as a safe haven for honey bees and a monitoring station to track the health and behaviour of the colony.
The present project focuses on making the hive self-sufficient in terms of the electric energy that powers the sensors and built-in electronics, using a radically innovative power source in the form of photosynthetic bacteria. The bacteria have to form a biofilm that is sustained by an underlying growth medium thriving on an exoskeleton.
The project pursues radical innovation by using an integrated organic approach based on biophysics and molecular biology and by exploiting the possibilities for 3d printing and digital fabrication offered by fab labs. The project is at the same time a source for stunning artworks, showing the beehives themselves, 3d models and sketches, results of the environmental monitoring, close up views of the fascinating world of bacterial photosynthesis, a.o.

6.7 CONTENT AWARE STUDIES

Residency category: 1

Artist: Egor Kraft

Tech Project: Data Pitch

The project initiates an inquiry into the possibilities of Machine Learning to reconstruct lost fragments of sculptures.

Artist's short bio - EGOR KRAFT

Egor Kraft works at the intersection of arts, media, technology, film, critical design and research while mostly showcasing outcomes of his practice in a purely artistic contexts.

Egor acquired his education from Gerlesborg School of Fine Art (SE), Moscow Rodchenko Art School (RU), Academy of Fine Arts Vienna (AT), Central Saint Martin's College (UK) and 'The New Normal' at Strelka Institute (RU).

He participated in The 5th and 2nd Moscow International Biennials for Young Art, Ars Electronica, 'Open Codes' in ZKM, Impakt Festival, Vienna Contemporary, Manifesta X, Cyfest, Kyiv Biennale, group exhibitions in Hermitage Museum, Garage, MOMMA, MAMM, PERMM, Moscow Polytechnic Museum and many other international shows, festivals, screenings and panels across Europe, US, Australia and Russia. Egor was nominated for various prizes including the State Innovation Art Prize (RU), Kuryokhin Prize (RU), Creative Enterprise Award (UK) and the Pulsar Prize (FR). In 2017 he was included in the New East 100, a list of people, places and projects shaping our world today by London based Calvert Journal.

As an artistic method Egor looks for ways to produce the work that sits on the boundary between reality and its virtual misrepresentation, involving artificial information systems, films, interventions as well as traditional medias. In his practice he questions how human irrational subconscious reasoning co-exists with a ubiquitous mechanic rationality in the Anthropocene era and speculative future scenarios.

http://egorkraft.com

The Tech Project - DATA PITCH

Data Pitch is an EU-funded open innovation programme around shared data. Data Pitch has set up an innovation space that offers the technical, legal, and ethical infrastructure for organisations owning data to be able to share it safely, securely, and responsibly; and facilitates and nurtures partnerships of these data providers with micro, small, and medium size entrepreneurs to develop new business ideas and co-create value. The increasing ubiquity of computing devices, empowered and connected to each other via high-bandwidth Internet - recording every aspect of life - is driving a new industrial revolution. This revolution is centred around the availability of, and access to, ever increasing amounts of data. In order for our societies to embrace and truly unlock this potential, data must entertain as well as inform. Through artistic approaches, the team wants to expand the reach of data-driven innovation technologies into mainstream cultural, economic and societal perspectives.

Residency project summary - CONTENT AWARE STUDIES

The project initiates an inquiry into the possibilities of AI and particularly Machine Learning to reconstruct and generate lost antique greek and roman friezes and sculptures by the means of algorithmic analysis of 3D scans of antiquity. It concerns about the potentialities of methods involving data, ML, AI and other forms of automations turning into semi- and quasi–archeological knowledge production and interpretations of history and culture in the era of ubiquitous computation. An algorithm capable of self-learning is directed to replenish lost fragments of the friezes and sculptures. Based on an analysis of models, it generates models, which are then 3D printed in various materials and used to fill the voids of the original sculptures and their copies. The synthetic intelligence that tends to faithfully restore original forms, also produces bizarre errors and algorithmic

speculative interpretations of, familiar to us, Hellenistic and Roman aesthetics, revealing a machinic understanding of human antiquity.

6.8 SMOKING GUN

Residency category: 1

Artist: Rachel Briscoe

Tech Project: Data Stories

Interactive digital fiction Smoking Gun mixes detective story with data to interrogate the post-truth paradigm.

Artists' short bios - RACHEL BRISCOE

fanSHEN make unforgettable creative interventions which are participatory, playful and political. They are a recovering theatre company, who now design and create audience-centric experiences which involve elements of performance, game and installation. They collaborate with designers, computational artists, scientists, musicians, film-makers, writers and all sorts of other people.

They take big, complex subjects and synthesise them into embodied experiences. They are interested in art as a liminal space within which risks can be taken, in polyphonic experiences, and in bringing groups together in ways that challenge the idea that life and other people are frightening. They want generosity, intellectual rigour and radical alternatives.

They have an ongoing collaboration with computational artist and privacy advocate Joe McAlister. His work focuses on themes encompassing metadata, security and embodied interaction, taking a particular interest in how technology can be used to aid progressive discussion.

Together fanSHEN and Joe created The Justice Syndicate (York Mediale, National Theatre of Scotland, 'Enthralling courtroom simulation which cuts to the heart of what it is to be an informed voter' 5*s, The Stage) and are currently working on new projects which combine narrative and data in new and interesting ways.

https://www.fanshen.org.uk/

The Tech Project - DATA STORIES

In the era of the so-called "post-truth society", it is becoming increasingly important to enabled (and encourage) people to understand data sources in an easily accessible form, while ensuring truthfulness and accuracy. Data Stories aims to understand: (a) whether people engage more with data that is made directly relevant to them; (b) whether people engage more with data through interaction; and (c) whether people will share data more often if sharability is built into the presentation. Data must entertain as well as inform, and excite as well as educate. Data Stories aims to explore the development of new ways of presenting data, including new types of visualisation, art installations, games, and

storytelling. Data Stories will deliver the tools and guidance that community and civic groups need to achieve broader participation and support for their initiatives at local and national level, and empower artists, designers, statisticians, analysts, and journalists to communicate with data in inspiring, informative ways.

Residency project summary - SMOKING GUN

Smoking Gun is a piece of interative fiction played on your phone over the course of a week. You are contacted by a whistleblower, who says he has information about something that needs to be made public. He can't tell you exactly what, for fear of being identified but he can direct you to publicly available information where, he says, you can find out what he knows. You solve puzzles, scrutinize videos and images, follow clues.
Over the course of the game, your detective work uncovers incendiary information which could bring down a controversial public figure. You – and the others playing, who you can chat with online – must decide whether you go public. But who and what can you trust?
Smoking Gun takes popular elements of detective thrillers and grounds them in data: in order to get beyond 'post-truth', the player must evaluate the conflicting claims of different characters and see how they measure up to real world data. The piece also incorporates realtimedata about things such as weather, traffic to give the impression that the story is unfolding in parallel with players' lives, helping it feel plausible and immersive.

6.9 AIBO

Residency category: 1

Artists: Ellen Pearlman

Producer: RIXC, Riga based new media center (Latvia), Renewable Futures Headquerters, Oslo based company (Norway).

Tech Project: GOPROSOCIAL

AIBO: An emotionally intelligent, artificial intelligence brain opera

Artists' short bios - ELLEN PEARLMAN

Ellen Pearlman, a New York based media artist, curator, writer and critic is a faculty member of Parsons/New School MFADT, and Director of the ThoughtWorks Arts Residency. A Fulbright World Learning Specialist in Art, New Media and Technology, she received her Ph.D. in Digital Media from the School of Creative Media at Hong Kong City University where she premiered her brain opera "Noor", a fully immersive interactive brainwave opera at ISEA Hong Kong and the Microwave International Festival, HK. Her PhD thesis, "Is There A Place In Human Consciousness Where Surveillance Cannot Go?" was awarded highest global ranking from Leonardo LABS abstracts for all PhD thesis for 2018.

https://epmexico.wixsite.com/ellenpearlman

The Tech Project - GOPROSOCIAL

What motivates people to help? Dual-process theories of cognition, characterized by Kahneman as "thinking fast and slow" represent an important advance in our understanding of the roles of emotion and reason in motivating human prosocial behavior and empathy. GOPROSOCIAL project a) studies affective chronometry underpinnings of empathic reactions using subjective, behavioral and physiological measures, b) designs, validates and optimizes a novel interactive physiology-based neurocinematic system that uses videos, pictures, sound or virtual reality for assessing and training prosocial behavior based latest neurofeedback research, c) explores other application areas including clinical (mood disorders) and art domains.

Residency project summary - AIBO

AIBO is a love story between a performer wearing a brain computer interface connected to a live time prosthetic body of light that displays their emotions as various colors, akin to an exterior nervous system, and an emotionally intelligent artificial intelligent entity that responds and interacts with the performer. The performer and entity engage in dialogues about their intimate relationship, all the while interacting with an audience. Both the performer and the AI entity's emotional states, which are monitored thorough biometrics and semantic analysis of their emotions launch databases of visuals and sonic environments allowing viewers to see into their (both the performer and AI) hidden cognitive states.

6.10 ONSITE_LIVING_3D

Residency category: 1

Artist: Sebastien Wierinck

Producer: White Circle

Tech Project: 3DMP Living

The OnSite series is an ongoing project that explores the potential of cad/cam technologies

Artist's short bio - SEBASTIEN WIERINCK

Sebastien Wierinck (b. 1975, Kortrijk, Belgium) lives and work in Marseilles - France, is an artist and designer. He studied interior and furniture design at the St-Lukas Hogeschool of Brussels.

Since 2006 he works as an independent artist and designer. His works focus on public furniture objects and temporary installations. Other works includes interior design projects and recently domestic furniture projects. His skills and practice include research, design and production, mainly by exploring digital design and manufacturing tools in his creative process. His work is related to the Digital Crafts movement.

Major projects includes a commission for a series of functional sculptures in The Hague- The Netherlands, a series of custom public benches for the City of Nancy – France, a bench design for the Palais de Tokyo, a monumental temporary installation for the J1 building commissioned by MP13, a bar design and a brewery interior design for the Centquatre, the cultural center of the city of Paris.

His clients include the city of The Hague – NL, the city of Nancy – Fr. the French National Railroad Company SNCF, Honda Europe, Vodafone, the French public furniture brand CYRIA, among others.

He collaborated with several cultural organizations and institutions, including Stroom den Haag, Todaysart, Club Transmediale Berlin, Strelka institute Moscow and Den Frie contemporary art center in Copenhagen.

http://www.swws.net

The Tech Project - 3DMP LIVING

Challenges of the project exist on several levels, here a few: Finding the sweet spot between economic feasibility and added value Although the 3DMP-Technology is one of the fastest additive manufacturing processes, it is still expensive. We believe that additional value for end customers and the creative sector can be created, yet, pivoting the economic and technical constraints against functional and aesthetic advantages is one challenge. Understanding "creatives" The 3DMP-technology was developed for large industrial metal parts, e.g. for ships or airplanes. For these industrial applications the surfaces of the printed part have to be milled in order to function properly. Yet, the unprocessed artisanal surfaces can be used as an artistic feature in creative segments and distinguish it from other technologies. 3DMP-Living is an internal spin-off that aims to unveil and develop economic business cases for large scale metal print in the fields of architecture, art and design. Compared to other 3D metal printing methods the technology is cost efficient and enables the designer to think on a large scale (up to 3 cubic meters) and create real size objects that are sustainable and functional. This lifts 3D-printing from the status of "prototyping" to the status of "production". Additionally, it is the only additive manufacturing technology which offers the possibility to combine different metals during the print process.

Residency project summary - ONSITE_LIVING_3D

Having first explored the potential of standardized flexible plastic flexible materials supported by metal laser-cut frameworks in a series of temporary objects and installations (OS), then secondly the potential of CNC free-form bended metal pipes (BM) for permanent urban projects, the use of 3D metal robotic additive large-scale printing could be the next stage in the further development of the OnSite project, site specific public functional sculptures.

6.11 « CONTINUUM », MARTIAN SUNSET SIMULATOR

Residency category: 2

Artist: Félicie d'Estienne d'Orves

Tech Project: "Eyes on Mars"

Producer: bOssa / bureau Olivia s. sappey d'anjou

Based on scientific data and a numerical simulator, the project is a reconstruction of a sunset as could be observed on Mars.

Artist's short bio - FÉLICIE D'ESTIENNE D'ORVES

The work of Félicie d'Estienne d'Orves combines light, sculpture and new technologies. Her research focuses on vision, it's processes and conditioning. Her immersive installations use a phenomenological approach to reality, they underscore the perception of time as a continuum. Since 2014, the artist' researches focused on space in relation to astrophysics and to study the natural light cycles.

Her work has been shown at the Centre Pompidou (Paris) – Nuit Blanche (Paris) – Sorbonne art Gallery (Paris) – Le Centquatre / 104 for the Biennial of Contemporarary Digital Arts (Paris) – New Art Space / Sonic Acts (Amsterdam) – Watermans Arts Center (London/UK) – Elektra Festival (Montreal/CA) – OCAT (Shanghai/CN) – ICAS (Dresden/DE) – Aram Art Museum (Goyang /KR) – Luz y Vanguardias (Salamanca/ES) – Day For Night (Houston/USA) etc.

http://www.feliciedestiennedorves.com.

The Tech Project - "EYES ON MARS"

The team develops numerical Global Climate Model and various simulation tools in order to simulate the details of the environment on Planet Mars (temperature, winds, clouds, snow, etc.). The aim of this modelling is high: ultimately to build numerical simulators based only on universal equations, yet able to consistently reproduce the available observations obtained by the space missions that have explored Mars. The goal is to create a realistic virtual planet that behaves like the real one. This allows to predict the Martian environment when needed and to interpret new observations. Visualization of the environment on Planet Mars based on available data and numerical simulations of the diurnal variations and the seasonal variations.

Residency project summary - « CONTINUUM », MARTIAN SUNSET SIMULATOR

The « Continuum » project is a visual simulator of the Martian sunset based on scientific data collected alongside researchers specializing in Mars and its atmosphere.
The collaboration with the Dynamic Meteorology Laboratory (LMD) of Jussieu would be a great opportunity to integrate in a visual simulator, real-time environmental data provided by The Mars

Climate Database Projects. The main outcome of the collaboration with LMD would be the integration of atmospheric scientific data (wavelengths, turbidity, Rayleigh scattering, Mie scattering, etc.) so as to reproduce and very slowly animate the colorful aura of the Martian sky following the sun's position. The program will be manipulated and operated by the artist and scientists to experiment and seek out gradations consistent with the scenario of the Martian sunset. The other aspect of the IT development of our 'simulator' will integrate data from Martian dust Climatology and data of the Martian relief (geology) following the latitude and longitude on Mars planet. The final outcome in an exhibition space (or on a theater stage) will present the Martian landscape on a large-scale immersive screen (10 to 15m wide) as a real-time monitoring. A smaller screen will display technical and map pieces of information about the Martian site. We also plan to develop an online simulator to be able to exchange more easily with other labs abroad and for open source.

6.12 SENSORIUM AUDIO THEATRE

Residency category: 1

Artist: Rafal Zapala

Tech Project: FutureLab

Immersive, Interactive, Biofeedback-Data-Driven Environment for a New Public Musical Experience.

Artist's short bio - RAFAL ZAPALA

RAFAŁ ZAPAŁA composer, sound artist, improviser/piano, drums, electronics/ post-doctorate degree (habilitation) – composition associate professor at Academy of Music in Poznań, Poland Zapała does not recognize any boundaries between music acquired through academic education, experience of the counterculture and collaboration with artists from any other fields. Graduated: composition (MA, PhD, habilitation) and conducting (MA). Artist-in-residence at Stanford University–CCRMA, Zamek Cultural Center, Świętokrzyska Philharmonic, ZK/U Berlin and others. Head of Kołorking Muzyczny, founder and head of an_ARCHE NewMusicFoundation and many ensembles (contemporary, improvised, electronic music). His concept of Live Electronic Preparation (LEP Technique) was published in Oxford Handbook of Interactive Audio (Oxford University Press, 2014). Sound Designer of installation "Post-Apocalypsis" for The Polish National Exhibition at 13th Prague Quadrennial (awarded with Gold Medal in Sound Design cathegory).
http://zapala.com.pl/

The Tech Project - FUTURELAB

The Future School Laboratory is an experimental venture powered by Poznań Supercomputing and Networking Center designed to study the interface between end users and state of art web and

network services in the context of education and R'N'D projects on a national and global scale. The Future School Laboratory is where the team conducts research and development activities to test the limits of the state-of-the-art technologies in the context of education and learning. Through curated, tailored for specific age groups, interdisciplinary adventures they strive to engage participants on the grounds of experience and experimentation. Every narrative is the fruit of collaboration between IT engineers, domain experts, artists and independent teaching professionals. The laboratory provides a test ground for experimental storytelling and teaching solutions is a venue for cooperation, initiative and educational events, houses advanced e-competence and soft-skills research facilities.

Residency project summary - SENSORIUM AUDIO THEATRE

The team intends to develop an environment for a new public aural experience. Entitled "Sensorium Audio Theatre", the project stems from research on immersive educational environment to enhance students' concentration. However, it goes much farther.
The first model of the Sensorium was the effect of the author's traineeship at Stanford University's CCRMA Institute in 2014 (Palo Alto, 2014). Its first edition was developed on request of "The Castle" Culture Centre in Poznań (Poland). The sound installation filled the monumental, disused, empty space of the Clock Tower situated in the very heart of the city. Following the first Sensorium model, a bolder idea of a new, immersive environment of public experience of music germinated.
The Sensorium essentially consist in transposition of the structure and dynamics of visitor's emotional psychophysical reactions upon musical structures in a direct "live" experience. The objective is to create a musical environment which will let one hear their psycho-physical reactions, experience (through composed music) their changeability, as well as comprehend the possibility of exerting control over them.

6.13 INVISIBLE AGENCY

Residency category: 1

Artist: M. Stanza

Tech Project: Art Antenna

Investigating the ethics of data manipulation and trust in smartcities.

Artist's short bio - M. STANZA

Stanza artworks since the mid eighties have focused on the participatory system the 'city'. Recurring themes throughout his career include the urban landscape, surveillance culture, and the real time city. Stanza focuses on the things that change, the flow and interlocking systems by using data that describes our experience of real space. Data is made malleable by Stanza in systems that can be mediated by all, with varying visualizations communicated over the internet and represented onto different display systems. Stanza researches data within cities and how this can be represented, visualized and interpreted as artworks. Data from security tracking, traffic, and environmental

monitoring has been used to make artworks. These investigations have created new ways of comparing, conceptualizing and then visualizing complex concepts related to the relationship of emergent data and real space in the built environment.
http://stanza.co.uk/

The Tech Project - ART ANTENNA

Wavecom aims to develop creative solutions (construction of artistic prototypes) to cover / hide the equipment it installs in turn-key mode. Creating new offers at the visual impact level of the equipment needed for the implementation of communication systems. By reducing the visual impact of the box, antennas or other necessary media, Wavecom contributes to the artistic and cultural enrichment of the company's clients by offering creative and innovative solutions from the point of view of communications, but also in their physical aspect. The intention is to put artists to work the facilities and technological equipment as raw material, provoking the use of a wide range of materials little explored in the artistic field creating installations, sculptures, painting or other structures that personalize the technological facilities.

Residency project summary - INVISIBLE AGENCY

The artist wishes to research Wavecom communications equipment and smart city technologies to create an artistic metaphor thats acts asa machine that can be situated in a vision of the future where trust plays a central role. Invisible Agency will become an experimental data visualisation interface connecting real time city spaces (IOT platforms) into a dynamic co creation artwork using data from across the city to question the ethics ownerships and manipulation of data. Once this is made the data streams will be used to make a physical work, a large scale sculpture.

6.14 MARK II SPIKING PERCEPTRON

Residency category: 1

Artist: Matthew Biederman

Tech Project: ChipAI

Reimagining Rosenblatt's Perceptron through neuromorphic light based computation.

Artist's short bio - MATTHEW BIEDERMAN

Matthew Biederman works across media and milieus, architectures and systems, communities and continents since 1990. He creates works where light, space, and sound reflect on the intricacies of perception. Since 2008 he is a co-founder of Arctic Perspective Initiative, with Marko Peljhan working on projects throughout the circumpolar region. Biederman was the recipient of the Bay Area Artist Award by New Langton Arts, First Place at Slovenia's Break21 festival. He has served as artist-in-residence at a variety of institutions and institutes, including the Center for Experimental Television on numerous occasions, CMU's CREATE lab, the Wave Farm and many more. His work has been

featured at Lyon Biennale, Istanbul Design Biennial, The Tokyo Museum of Photography, ELEKTRA, MUTEK, Montreal Biennial (CA), Biennale of Digital Art (CA), SCAPE Bienniale (NZ) and the Moscow Biennale (RU), among many others.

http://www.mbiederman.com

The Tech Project - CHIPAI

ChipAI explores a portfolio of future light-based nanotechnologies using cheap, ultra-small, efficient and fast light sources and detectors capable of being utilized in future brain-inspired systems and networks. These will offer great potential to improve the quality of life of European and international citizens through considerable scientific, economic and societal benefits. The main applications include artificial intelligence and machine learning, and high-bandwidth telecoms and so will contribute to a wide range of industrial sectors with global interest, e.g. information and communications technologies, healthcare, active and healthy ageing, agriculture, public administrations and transport. Notably, the research addressed by ChipAI project is driven by interdisciplinary collaborations between electrical and optical engineers, experimental and theoretical physicists and computer and machine learning scientists, and others. Being part of the interdisciplinary team of ChipAI's project, the artist will have access to a creative and scientific environment and thinking. Importantly, the artist will have access to all the project's technologies and data produced. This includes material samples and proof-of-concept prototypes, scientific reports, data sets, and sounds, videos and images produced by a complete set of state-of-the-art equipment.

Residency project summary - MARK II SPIKING PERCEPTRON

In order to explore the intricacies of the ChipAI technology, the artist proposes to look back at one of the earliest forms of embedded AI technology, the Mark I Perceptron, developed by Frank Rosenblatt in 1957 at Cornell University. Rosenblatt, a neurobiologist who was interested in how the eye of a fly acted as both the sensor and processing unit for the fly to flee in certain situations. The Mark I perceptron was both a sensor and processing unit built in hardware that could identify objects placed in front of it. Using the methodology of the ChipAI system as a means of inspiration for a novel construction of a light and sound based installation, the artist plans to try and bridge the gap between one of the earliest forms of AI with new cutting-edge advancements.

6.15 RANDOM BEAUTY

Residency category: 1

Artist: Ali Tocher & Joe Acheson

Tech Project: Sounds for Coma

Infinitely-varying, dynamic soundscapes for the ICU environment, combining sonic therapy and cognitive science

Artist's short bio - ALI TOCHER & JOE ACHESON

Joe Acheson is a musician/composer/producer and sound artist. His main project Hidden Orchestra has seen him tour the world, and a large part of Joe's music is using found sounds. Past commissions include the BBC, National Trust, British Library, and most recently a project for Kew Gardens, working with botanical scientists to depict plant relationships through a periphonic sound/music installation. He's currently working on generative/reactive music governed by conditional logic for a computer game project.

Ali Tocher is a sound designer and sound artist. His professional career sees him designing and creating the audio for some of the UK largest indie game studios. His artist vent has been, since his sonic experience during the birth of his first child, focused on therapeutic audio for the medical industry.

http://joeacheson.com/

The Tech Project - SOUNDS FOR COMA

In the context of this collaboration, the project is investigating three main axes of research: (1) designing and using sounds as a way to explore states of consciousness in coma (ex. sounds of laughter to see if a patient smiles back). The challenge of this axis is to create sounds (or sound apparatus) that are both emotionally meaningful and possibly personalized for the patient, and at the same type fit the requirements of clinical investigation (e.g. short, repeatable for EEG examinations). Prototypes sounds will be tested in the context of routine electrophysiological examinations in the ICU, in collaboration with doctors from Hospital Saint-Anne (2) creating and using sonic/musical textures to improve the ICU soundscape and provide a more therapeutic environment (ex. spatialized musical textures to decrease anxiety in patients and family). The challenge of this axis is to create sounds (or sound apparatus) that have both a suitable form to be used in a daily clinical environment (e.g. not overwhelming or distracting for the practice of caregivers) and a content that has beneficial properties for the patient recovery (e.g. reducing anxiety, comforting, providing a sense of privacy or safety). Prototype sounds will be tested in the context of IRCAM studios, and may be deployed with custom sound diffusion (multi-speaker, etc.) systems in the ICU. (3) designing more informative and less anxious alarms for ICU scopes and equipments (ex. sound alarms adaptive to actual medical emergency). The challenge of this axis is to create alarm sounds (or sound apparatus) that are both distinctive and informative (e.g. one should not miss a critical alarm) and that improve the environment (e.g. by facilitating the attribution of a given alarm to a given piece of equipment, avoid unnecessary call of attention, decrease anxiety). Sound prototypes will be tested in the lab, and their integration in actual medical equipement will be attempted in collaboration with technical staff at the Saint-Anne Hospital.

Residency project summary - RANDOM BEAUTY

Random Beauty is a collaboration between Joe Acheson (composer & sound artist), and Ali Tocher (sound designer and sound artist). They are building a system that takes input in the form of natural

sounds and music and outputs therapeutic soundscapes for the ICU environment, with the ability to be controlled by users. This collaboration pairs them with vaunted institute IRCAM and Hospital St-Anne to try to best design the sonic space of their ICU.
By using cutting edge audio technology created for the gaming industry, Joe & Ali are designing a dynamic soundscape that will be infinitely varying and can be dynamically controlled by staff or patients. The final output will manifest as an app for distribution and playback in hospitals globally.
The challenge of this project will be to interface with IRCAM cognitive scientists, hospital staff and patients to ascertain the design requirements of the ICU and create a soundscape that is both beautiful and therapeutic, while also meeting the constraints of the space.

6.16 COSMOLOGIES OF THE CONCERT GRAND PIANO

Residency category: 1

Artist: Aaron Einbond

Tech Project: OM7/om-spat

Cosmologies explodes the space inside a concert grand piano out to the space around the concert hall audience.

Artist's short bio - AARON EINBOND

Aaron Einbond's work explores the intersection of instrumental music, sound installation, field recording, and technology, bringing the spontaneity of live performance together with computer interactivity. Recently Chicago-based Ensemble Dal Niente released his portrait album Without Words on Carrier Records, SWR Experimentalstudio produced his Giga-Hertz prizewinning Cartographies for piano with two performers and electronics for the 47-loudspeaker Klangdom at ZKM in Karlsruhe, and the Académie du Festival d'Aix and Opera Lab Berlin co-produced his site-specific ambient chamber opera Hidden in Plain Sight in the streets of Aix-en-Provence. Current projects include collaborations with Yarn/Wire, TwoNewDuo, loadbang, and the Riot Ensemble. He teaches Music Composition, Sound, and Technology at City, University of London and is Co-Artistic Director of Qubit New Music Initiative with whom he curates and produces experimental media in New York.

https://aaroneinbond.wordpress.com

The Tech Project - OM7/OM-SPAT

This proposal is framed in the development of OM7, a new generation of computer-aided composition environment, and satellite libraries linking it to state-of-the art music technology components for digital signal processing, spatial audio and machine learning. While computer-aided music composition software has been used in the past with digital signal processing tools, the challenges the team is seeking to address involve both fields and their interconnection within

interactive frameworks, including the latest approaches for human-computer interaction, as well as technologies for machine learning. While the idea of using AI to produce music has been successfully explored, machine learning and artificial intelligence are seldom used by the composers as assistance to creative processes: they also hope to highlight relevant applications, using such techniques to control or generate parameters for sound spatialization and DSP in compositional contexts.

Residency project summary - COSMOLOGIES OF THE CONCERT GRAND PIANO

How does a listener know immediately when she or he walks into a room with a live grand piano instead of a recorded one? One reason is the complex interactions between the piano and the space that surrounds it. While many works have combined piano with electronic sounds, few have attempted to fuse them by modeling the piano's spatialization pattern dynamically with loudspeakers. This project seeks to explore this goal artistically in collaboration with the OM7/om-spat Tech Project team, through a new composition entitled Cosmologies. Few composers have used Artificial Intelligence (AI) techniques to assist in the creative process, yet AI and machine learning techniques present promising possibilities when applied to the problems of timbre and spatial audio. The intricate interdependency of timbre and space that brings a concert grand piano to life are difficult to reproduce electronically, but machine learning can help. The development of these computer tools will enable the production of Cosmologies for piano and electronics, in which the quicksilver filigree of live concatenated samples moving through the performance space complements the flickering image of the piano with its diffusion pattern magnified by close and contact microphones.

6.17 CONSTELLA(C)TIONS

Residency category: 1

Artist: Michelle Agnes Magalhaes

Tech Project: BeCoMe / Collective Interaction

Constella(c)tions is sonic environment from which emerges an interactive and collective musical work. In this concert-instalati...

Artist's short bio - MICHELLE AGNES MAGALHAES

Michelle Agnes Magalhaes is a Brazilian composer whose music explores the limits between gesture and writing, composition and improvisation. She has been awarded fellowships, residences and commissions from Radcliffe Institute (Harvard University), Fapesp, Camargo Foundation, Villa Sträuli, Brazilian Culture Minister, Fondazione Giorgio Cini Venezia, IRCAM and Siemens Foundation. Her compositions are about the production of sound and physicality. She focuses on raw materials, creating complex sounds inside forms that are geometric and structured. Magalhaes also places a high premium on the engagement of the musician's body with her performance, as well as new approaches to traditional instruments and instrumentation.

http://www.michelleagnes.net

The Tech Project - BECOME / COLLECTIVE INTERACTION

The team is developing a web-based ecosystem of software and hardware to create embodied collective interaction with media, and particularly with sound and music. In this context, the challenge we propose is to invent, design and develop novel scenarios, interactive paradigms, gameplay – by means of any artistic form with a strong emphasis on sonic aspects – that implement, support and/or question human / human interaction through the mediation of these technologies.

Residency project summary - CONSTELLA(C)TIONS

In a close collaboration with the Sound Music Movement team (IRCAM) this project proposes the creation of a sonic environment from which emerges an interactive and collective musical work. Configured as a mix of musical set and installation, this musical space will have cell phones as main tools and instruments. It proposes to shift towards a new paradigm for musical score through the appropriation of web audio tools, mobile technologies and musical instruments. In this context, the musical score is replaced by a collective game whose rules are implied in the instruments interface, visual representation, spatial arrangement, forms of interaction, and sound profiles. The participants (audience) are invited to navigate between codes and different types of visual representation: QR codes, drawings, tablatures, calligrams. In this proposition, music writing is conceived as collective actions that unify sound, sound representation and gestures in a multidimensional space. This will result in highly shifty musical and interaction forms that alternatesconstella(c)tions and pop-up musical forms.

6.18 STILL

Residency category: 1

Artist: Natan Sinigaglia

Tech Project: vvvv - a visual programming environment

Still is a mesmerising audio-visual work performed by electro-acoustic instruments, dancer and custom software.

Artist's short bio - NATAN SINIGAGLIA

Natan Sinigaglia is sound and visual artist based in Milan, Italy. With a strong background in music, contemporary dance and realtime graphics, he explores the infinite interconnections between sound, space and image, creating canvases where languages lose their boundaries and share forms and meanings. In the year 2008 Sinigaglia co-founded Abstract Birds artistic duo, together with Pedro Mari. Between 2008 and 2013 the duo produces and performs sound-visual projects in many prestigious international festivals worldwide. In addition to the artist role, he's also the technical director and main programmer of all Abstract Birds projects. Between 2011 and 2014 Sinigaglia collaborates with the London based visual artist Quayola, producing artworks and Performances under the name of Quayola & Sinigaglia. In 2015, driven by the necessity of exploring themes related

to body-space relationship and contemporary art's fruition, he starts to produce artworks in form of interactive site-specific installations.

http://www.natansinigaglia.com

The Tech Project - VVVV - A VISUAL PROGRAMMING ENVIRONMENT

vvvv's main goal is to allow users to rapidly experiment with different ideas. By unifying access to different technologies, like computer-vision, machine-learning, 3d-animation, VR, AR… vvvv makes them available to a wider audience, and more accessible to people without programming backgrounds. vvvv is a visual programming environment that started out as an inhouse coding-framework at http://meso.design to realize largescale interactive media installations. Soon it became apparent that the software we had created would be suitable for many other people in the field of creative-technologies and vvvv became independent in 2006, growing a world-wide community of users around it on https://vvvv.org, which is meeting at the biennial NODE festival in Frankfurt: https://nodeforum.org/activities/node-forum/.

Residency project summary - STILL

Still is a mesmerising audio-visual work performed by electro-acoustic instruments, dancer and custom software. During the performance, these multiple components join together to generate real-time visuals projected in the space, together with an immersive soundscape. The artist will perform on stage using the instruments and his body - tracked in real-time - as an interface to control the visuals. The sound of the musical instruments will be analyzed by a custom real-time analysis software which extracts live data used for the content creation. Using AI analysis techniques the system will react to the artist's movement, generating its own audio-visual performance, and ultimately establishing a dialog with him. The theme of the performance is perception of time in contemporaneity. As the philosopher Byung-Chul Han says, "the value we attach today to the vita activa is producing a crisis in our sense of time. As a remedy to this, we should revitalizing the vita contemplativa, our capacity for reflection and contemplation. When life regains this capacity, this art of lingering, it gains in time and space, in duration and vastness".

6.19 INSIDE-OUT: KNITTED DNA

Residency category: 1

Artist: Carolin Vogler

Tech Project: ChromDesign - Chromatin structure and Design

The artwork translates chromatin & DNA structures into knitting patterns and converts them into textile art.

Artist's short bio - CAROLIN VOGLER

Carolin is a curious design and science enthusiast with a background in fashion marketing and luxury management. While working for global fashion clients throughout the last 7 years, she has become confident in creating her own designs. Studying the Fabricademy course about digital fabrication for textiles at Fab Lab Barcelona, taught her a variety of new techniques and skills that are applied in the recent work. Through her research, including 3D prints on textiles and crystallisation processes, Carolin explores new design strategies and sustainable applications for future-proof fashion businesses. Merging her marketing skills with her design ideas and maker knowledge she is exploring ways to create textile art and urban fashion.

https://medium.com/@CarolinVogler

The Tech Project - CHROMDESIGN - CHROMATIN STRUCTURE AND DESIGN

The technological challenge of the project is to integrate a large amount of interdisciplinary research data into one model to simulate the organization of the genome and epigenome in space and time, and the principles that lead to determination and maintenance of different cell types in response to internal and external stimuli linked to health and disease. Data generated by the project includes: - genome and epigenome sequencing data - 3D high-throughput (deep-imaging) and super-resolution imaging ("nanoscopy") data - massive parallel single cell gene expression data - datasets from DNA-protein interaction and chromatin conformation studies - mathematical modelling data.

Residency project summary - INSIDE-OUT: KNITTED DNA

DNA is the blueprint of life. The installation aims to bring this information stored in our cells to the surface by making artistic fashion pieces based on genetic information. Combining science, fashion and technology, wearable pieces are created which portrait genetic structures through visual aesthetics. By knitting DNA pieces of different species visitors become aware of the similarities and differences between them. Variations in length and complexity of the genetic code can be visualised in the knitted artwork. Based on the research of the scientific partner CRG, genetic information stored in chromosomes will be converted into several colour patterns. A knitting machine reads and replicates these patterns representing the DNA replication process. Visitors can witness and experience this process throughout exhibition or a video. Already knitted artwork can be displayed along with the live knitting process/video as part of a growing exhibition of DNA inspired knitwear. Combining the replication of DNA with knitting machines shall further provoke discussions about the possibilities of controlled DNA editing.

6.20 TECHNOLOGICAL FLESH

Residency category: 1

Artist: Ka Fai Choy

Tech Project: Moving Digits

TECHNOLOGICAL FLESH explores the possibilities of digital dance technics as a supernatural dance experience.

Artist's short bio - KA FAI CHOY

Choy Ka Fai a Berlin-based Singaporean Artist. He is inspired by the histories and theorizations that together contain the uncertainties of the future. His research springs from a desire to understand the conditioning of the human body, its intangible memories and the forces shaping its expressions. These factors converge into complex articulations at the intersection of art, design and technology. Ka Fai graduated from the Royal College of Art, London, with MA in Design Interaction in 2011 and was conferred the Young Artist Award by the National Arts Council, Singapore, in 2010. He completed a 12-month Artist-in-Residency program at Kunstlerhaus Bethanien Berlin in 2014 and is currently the Factory Artist (resident artist) at tanzhausnrw Dusseldorf. His projects have been presented in major festival worldwide, including Sadler's Wells London (2016), ImPulsTanz Festival, Vienna (2018 & 2015) and Tanz Im August, Berlin (2015 & 2013).

http://www.ka5.info

The Tech Project - MOVING DIGITS

Moving Digits: Augmented Dance for Engaged Audience aims to enhance audience understanding and engagement in contemporary dance performances, and to allow to experience dance in an augmented way (even after the performance). The project also aims to empower dancers, choreographers and technicians with further tools for expression, archival and analysis. The use of technology to sense dancers is not new, but the combination of bodily sensing, motion tracking, visualization and sonification is, and especially so in a participatory form. The main aim is to use the advantages of available sensor and mixed media technologies in communicating the body language to the audience. Some of the main motivating questions during the process should be - in which ways can technology translate, transform or extend our bodily existence in space and time? What sort of new effects and meanings can this mediation produce or reveal? How can technology enhance the participatory potential of a dance performance? How can we use technology to enable two-way communication with the audience?

Residency project summary - TECHNOLOGICAL FLESH

TECHNOLOGICAL FLESH explores the possibilities of digital dance technics as a supernatural dance experience. Inspired by the concept of post-human choreography, the project speculates on choreographic expressions of Trance culture in dance, movement and music. Can we digitised the dance of the Supernatural? Can we measure the digital notations of trance movement? TECHNOLOGICAL FLESH proposes new perspectives on how the body can transcend beyond physical boundaries and venture into the digital cosmos of virtual realities. Our choreographic exploration aims to expand the human intellect, physical and psychological capacities

in Dance. And maybe we are all have an itch to transcend beyond our physical flesh. TECHNOLOGICAL FLESH re-imagines the perception of our body and seek to provide an immersive participatory dance experience engaging with digital technologies like data visualisation, motion capturing, augmented and mixed reality.

SECTION 7 – Post-selection process

Distribution of the residencies

Four partners of the VERTIGO consortium are mandated to monitor the selected residencies: IRCAM, Artshare, INOVA+ and EPFL, with co-production contracts managed by the first 3 partners. Right after the final selection, and the post-selection validation process, a consortium meeting established the distribution of the residencies management among partners, as follows:

Residency Name	Vertigo Contractual Partner	Vertigo Monitor Partner
Cyber-Species Proximity	Artshare	EPFL
Suspended Moment	IRCAM	IRCAM
Artificial Intelligence and Its False Lies	Inova+	Inova+
Biobot	IRCAM	IRCAM
Becoming.Eco(Logical)	IRCAM	IRCAM
Sensorial Skin	IRCAM	IRCAM
Content Aware Studies	Artshare	Artshare
Smoking Gun	Artshare	Artshare
Aibo	Artshare	Artshare
Onsite_Living_3d	IRCAM	EPFL
Continuum	IRCAM	EPFL
Sensorium Audio Theatre	Inova+	Inova+
Invisible Agency	Artshare	Artshare
Mark Ii Spiking Perceptron	Inova+	Inova+
Binaural Intervention for Disorders of Conciousness	Inova+	EPFL
Cosmologies of the Concert Grand Piano	Inova+	Inova+
Constella(C)Tions	Inova+	Inova+
Still	IRCAM	IRCAM
Inside-Out	Artshare	Artshare
Technological Flesh	Artshare	EPFL

Table 3: Distribution of the Residencies among VERTIGO Partners

Announcement of the laureates

The Jury decided that no comment (private or public) would be sent out to the candidates. The winners were presented during the STARTS Residency Day at the Centre Pompidou, on March 28th, 2019. Each candidate has then been notified about the result of his/her application and that the results were available online.

Annex 1 – Official result of the third call for residencies

Last name	First name	Tech Project	Category
Biederman	Matthew	ChipAI	1
Briscoe	Rachel	Data Stories	1
Choy	Ka Fai	MODI	1
d'Estienne d'Orves	Félicie	Eyes on Mars	1
Dumitriu	Anna	Human Robot Co-Mobility	2
Einbond	Aaron	OM7/om-spat	1
Kraft	Egor	Data Pitch	1
Maes	annemarie	Applied photosynthesis	2
Magalhaes	Michelle Agnes	BeCoMe	1
Pearlman	Ellen	GOPROSOCIAL	1
Peysson	Dominique	LEVITATE	2
Satomi	Mika	CONFIRM	2
Sinigaglia	Natan	vvvv	1
Srdić	Zoran	INSIDER	2
Stanza	.	Art Antenna	1
Tocher	Ali	Sounds for Coma	1
Tursic	Miha	ARESP	2
Vogler	Carolin	ChromDesign	1
Wierinck	Sebastien	3DMP Living	1
Zapala	Rafal	FutureLab	1

Annex 2 – Announcement of the 2019 laureates

Results of the VERTIGO STARTS Residencies Jury, March 28, 2019

The results of the 3rd Call for Artistic Residencies were announced during the STARTS Residencies Day at the Centre Pompidou. Louise Enjalbert and Pascal Keiser (chairman of the Jury) presented the 20 STARTS Residencies Laureates. For every selected residency the Artist was presented as well as the Tech Project and the residency proposal.

Some of the selected Artists and Tech Projects manage to come to the STARTS Residencies Day, and attended the announcement. Each time a residency was announced, the attending artists were invited to stand up, and were applauded by the public.

The announcement was recorded and streamed live allowing candidates not attending the session to follow the results.

Announcement of the 2019 laureates – Centre Pompidou – March 28th, 2019

Annex 3 – Jury Member Contract Template

VERTIGO JURY MEMBER CONTRACT

Between:

Institut de recherche et coordination acoustique/ musique, situated at 1 place Igor Stravinsky 75004 Paris, France, represented by Mr Frank Madlener, Director, hereinafter referred to as « IRCAM »

And

Name of the Legal Entity, *address*, represented by *Name of the Jury Member*, *address*, hereinafter referred to as « Expert »

Hereinafter referred to individually as « Party » and collectively as « Parties »,

Considering that:

IRCAM is coordinator of the VERTIGO project supported by the European Commission, which organizes the VERTIGO STARTS residencies program of artists in collaboration with research projects in the field of information and communication technologies (« ICT »). For its open call published in January 2018 and closing in March 2018, VERTIGO has received applications and IRCAM is in charge of organizing the selection of the applications by an international jury (« Jury ») made of a panel of high-level experts.

It has been agreed that:

Article 1 – Object

The Expert will participate in the Jury and contribute to the selection of the received applications according to the published selection criteria of the VERTIGO STARTS residencies call.

This Expert's participation will consist in:

- the remote evaluation of circa 30 application files using the online Ulysses platform. This evaluation shall be completed online at the latest by May 18th;
- His/her attendance to the jury physical meeting at IRCAM headquarters in Paris, on May 24th (11 am- 6 pm) and May 25th (9:30 am – 4 pm) 2018.

Article 2 – Grant and expenses

Provided that all expected elements of participation defined in Article 1 are fulfilled, and that all provisions of the current contract are respected, IRCAM will pay an amount of 500€ (five hundred euros) excluding VAT upon reception of an invoice of a legal entity to which the Expert is affiliated, mentioning the name of the Expert and his/her participation in the VERTIGO STARTS 2018 Residencies program selection jury.

In addition, IRCAM will organize the Expert's travel from his/her living place to IRCAM's headquarters and his/her accommodation in Paris in conformance to its standard travel and subsistence funding rules.

Article 3 – Contact

The contact person at IRCAM, responsible for the Jury selection process is Mr Greg Beller, head of Research/ Creation Interfaces, IRCAM. Email: greg.beller@ircam.fr

Article 4 – Confidentiality

Any information (« Confidential Information ») that the Expert will access to for the execution of the current contract shall be a priori considered as confidential, including contents of applications, exchanges between the Jury members and results of the Jury selection.

The Expert hereby undertakes, for a period of 4 years after the end of the Project:

- not to use Confidential Information otherwise than for the purpose for which it was disclosed;
- not to disclose Confidential Information to any third party without the prior written consent by IRCAM;
- to return to IRCAM on demand all Confidential Information which has been supplied to or acquired by him/her including all copies thereof and to delete all information stored in a machine-readable form. The Expert may keep a copy to the extent it is required to keep, archive or store such Confidential Information because of compliance with applicable laws and regulations or for the proof of on-going obligations.

The above shall not apply for disclosure or use of Confidential Information, if and in so far as the Expert can show that:

- the Confidential Information becomes publicly available by means other than a breach of the Expert's confidentiality obligations;
- IRCAM subsequently informs the Expert that the Confidential Information is no longer confidential;
- the Confidential Information is communicated to the Expert without any obligation of confidence by a third party who is to the best knowledge of the Expert in lawful possession thereof and under no obligation of confidence to the Disclosing Party;
- the Confidential Information, at any time, was developed by the Expert completely independently of any such disclosure by IRCAM; or
- the Confidential Information was already known to the Expert prior to disclosure or
- the Expert is required to disclose the Confidential Information in order to comply with applicable laws or regulations or with a court or administrative order.

Article 5 – No conflict of interest

In case the Expert identifies a potential conflict of interest with one or several application files, due in particular to his/her proximity with or competition to actors of the application which may positively or negatively influence the impartiality of his/her judgement, he/she commits to signal it with no delay to IRCAM and refuse to evaluate the corresponding applications.

Article 6 - Attribution of Jurisdiction

This Agreement is governed by French law.
In case of any dispute, execution, or termination of this contract, the partners agree to submit to the Tribunaux de Paris, but only after all amicable ways (such as conciliation or arbitration) have been exhausted.

Date:

For IRCAM — *The Expert*

Mr Frank Madlener, Director — *Name*

Annex 4 – Jury meeting program

S+T+ARTS RESIDENCIES

Call 3 Jury meeting

Tuesday, February 12, 2019:

- **11am**-12:30pm: Introduction
  - ✓ Jury members
  - ✓ STARTS Residencies project
  - ✓ Selection process
- 12:30pm-2:00pm: Lunch (Buffet at Ircam)
- 2:00pm-4:00pm: Round evaluation
- 4:00pm-4:30pm: Break
- 4:30pm-**6:30pm**: Round evaluation
- **8:30pm**: Dinner (Macéo – 15 rue des Petits Champs – Paris 01)

Wednesday, February 13, 2019:

- **9:30am**-11:00am: Round evaluation
- 11:00am-11:30am: Break
- 11:30am-1:00pm: Round Evaluation
- 1:00pm-2:00pm: Lunch (Buffet at Ircam)
- 2:00pm-3:30pm: Round Selection (1H30)
- 3:30pm-**4:00pm**: Conclusion, minutes (0H30)

Annex 5 – Jury Minutes

S+T+ARTS RESIDENCIES

VERTIGO STARTS RESIDENCIES 2019 CALL
Minutes of the Jury – 12-13 February 2019

The jury held in Paris on February 12-13, 2019
made of:

Pascal Keiser (chair), Camille Baker, Marialya Bestougeff, Francesca Bria, Paul Dujardin, Maud Franca, Yannick Hofmann, Martin Honzik, Chris Julien, Laurence Le Ny, Benoît Meaujean, Irini Papadimitriou,

decided the following:

1 – the list of the selected artistic residencies is indicated hereinafter; their acceptance is conditional to the fulfillment of the requirements appearing in the related commentaries if any, on the basis of the indicated funding Category:

Artist Name	Tech Project	Category
Maes Annemarie	Applied Photosynthesis	2
Biederman Matthew	ChipAI	1
Brevet Thibault	IwR	2
Srdić Zoran	INSIDER	2
Briscoe Rachel	Data Stories	1
Dumitriu Anna	Human Robot Co-Mobility	2
Kraft Egor	Data Pitch	1
Brown Julian	Sounds for Coma	1
Peysson Dominique	LEVITATE	2
D'Estienne d'Orves Félicie	Eyes on Mars	1
Tursic Miha	ARESP	2
Wierinck Sebastien	3DMP Living	1
Einbond Aaron	OM7/om-spat	1
Magalhaes Michelle Agnes	BeCoMe	1
Stanza	Art Antenna	1
Satomi Mika	CONFIRM	2
Rafal Zapala	FutureLab	1
Ellen Pearlmann	GOPROSOCIAL	1

2 – the sorted secondary list of selected artistic residencies is indicated hereinafter. They will be implemented in the mentioned order provided that the total number of implemented residencies does not exceed 18. Their acceptance is conditional to the fulfillment of the requirements appearing in the related commentaries if any, on the basis of the indicated funding Category:

Artist Name	Tech Project	Category	Comment
Vogler Carolin	ChromDesign	1	
Sinigaglia Natan	vvvv	1	
Choy Ka Fai	MODI	1	
Kuusk Kristi	MAGIC SHOES	1	
Tocher Ali	Sounds for Coma	1	Potential substitute for Sounds for Coma
Paine Garth	BeCoMe	1	Potential substitute for BeCoMe

Done in Paris on February 13th 2019,

Jury member	Signature
Camille Baker	
Marialya Bestougeff	
Francesca Bria	
Paul Dujardin	
Maud Franca	
Yannick Hofmann	
Martin Honzik	
Chris Julien	
Pascal Keiser	
~~Laurence Le Ny~~	
Benoît Maujean	
Irini Papadimitriou	