

APPLICATION FORM

PARTNER UNIVERSITY FUND (PUF)



E-MAIL PUF@AMBAFRANCE-US.ORG

T 202 944 6580

CLICK HERE TO UPLOAD THE APPLICATION FORM:
[HTTP://FACECOUNCIL.ORG/PUF/APPLICATION.HTML](http://FACECOUNCIL.ORG/PUF/APPLICATION.HTML)

How did you hear about PUF ?

- Associations (ACE, AASCU, IIE,...) :
 Newsletter (which one) :
 Newspaper (The Chronicle, Le Monde, ...) :
 Other SAIC and ESAA are partners in a current FACE/PUF partnership :

1 / PROJECT

TITLE : TRANSATLAB RESEARCH: SPACE AND OBJECTS

Level(s)*: Master PhD Postdoctoral Research

*Projects may include several levels

SUBJECT AREA(S)*:

*Projects may include several subject areas

- | | |
|--|---|
| <input type="checkbox"/> Mathematics, IT and applications | <input type="checkbox"/> Agronomy and food sciences |
| <input checked="" type="checkbox"/> Information Technologies | <input checked="" type="checkbox"/> Humanities |
| <input type="checkbox"/> Physics Sciences | <input checked="" type="checkbox"/> Arts |
| <input type="checkbox"/> Engineering Sciences | <input type="checkbox"/> Sociology |
| <input type="checkbox"/> Space, aeronautics | <input type="checkbox"/> Economy |
| <input type="checkbox"/> Chemical Sciences | <input type="checkbox"/> Politics |
| <input type="checkbox"/> Earth Sciences | <input type="checkbox"/> Law |
| <input type="checkbox"/> Energy, transport, environment | <input type="checkbox"/> Management and business administration |
| <input type="checkbox"/> Medicine, health | <input type="checkbox"/> Urban planning and transport studies |
| <input type="checkbox"/> Life Sciences | <input type="checkbox"/> Other |

2 / APPLICANT INFORMATION

PARTNERS

	US Partner	French Partner
Project leader		
Name	Peter GENA	Jean-Paul PONTHOT
Job Title	Professor	Director
Address	School of the Art Institute of Chicago	Ecole Supérieure D'art
	112 South Michigan Avenue	Rue Emile Tavan
Postal Code	60603	13100
City	Chicago, IL	Aix-en-Provence, FRANCE

Tel.	(312) 345-3570	+33 4 42 91 88 70
Fax	(312) 345-3565	+33 4 42 91 88 69
E-mail	pgena@saic.edu	jpponthot@ecole-art-aix.fr

	University / Institution of Higher Education	University / Institution of Higher Education
Project Leader's Institution	School of the Art Institute of Chicago (SAIC)	Ecole Supérieure D'art (ESAA)
Authorized signatory	Brian Esker, Vice President of Finance and Administration	Mr Stéphane SALORD, Deuxième Adjoint au Maire, Délégué à l'Ecole Supérieure d'Art d'Aix

ADDITIONAL PARTNER(S)

	Name of the institution	Name of the institution
Contact person		
Name		Erreur ! Signet non défini.
Job Title	Erreur ! Signet non défini.	Erreur ! Signet non défini.
Address	Erreur ! Signet non défini.	Erreur ! Signet non défini.
	Erreur ! Signet non défini.	Erreur ! Signet non défini.
	Erreur ! Signet non défini.	Erreur ! Signet non défini.
Postal Code	Erreur ! Signet non défini.	Erreur ! Signet non défini.
City	Erreur ! Signet non défini.	Erreur ! Signet non défini.
Tel.	Erreur ! Signet non défini.	Erreur ! Signet non défini.
Fax	Erreur ! Signet non défini.	Erreur ! Signet non défini.
Mail	Erreur ! Signet non défini.	Erreur ! Signet non défini.

3 / SELECTED PROJECT INDICATORS

3.1 / OVERALL BUDGET

	YEAR 1	YEAR 2	YEAR 3	TOTAL
AMERICAN	\$98,145	\$111,805	\$142,330	\$352,280
FRENCH	\$146,400	\$148,500	\$152,300	\$447,200
TOTAL	\$244,545	\$260,305	\$294,630	\$799,480

3.2 / SUPPORT REQUESTED FROM THE PUF FUND

	YEAR 1	YEAR 2	YEAR 3	TOTAL
BY AMERICAN(S)	\$29,440	\$34,750	\$42,650	\$106,840
BY FRENCH	\$30,000	\$35,000	\$40,000	\$105,000
TOTAL	\$59,440	\$69,750	\$82,650	\$211,840

3.3 / NUMBER OF FACULTY, RESEARCHERS AND POST DOC. INVOLVED IN THE EXCHANGE

(unit = person * month, i.e 1 represents one person during one month)

	YEAR 1	YEAR 2	YEAR 3	TOTAL
AMERICAN SIDE	6	6	8	20
FRENCH SIDE	6	6	8	20
TOTAL	12	12	16	40

3.4 / NUMBER OF STUDENTS INVOLVED

(same unit as above)

	YEAR 1	YEAR 2	YEAR 3	TOTAL
AMERICAN	8	10	12	30
FRENCH	8	10	12	30
TOTAL	16	20	24	60

4 / OTHER GRANT(S) REQUESTED OR ALREADY OBTAINED FOR THIS PROJECT

FRENCH TEAM

Other request(s) for 2005-2008

Have you already obtained other financing for this Project ? Yes No

From which source ?

French American Cultural Exchange Program

With the same partner ? Yes No

If yes:

For what amount ? \$65,800

For which period ? Over 3 years, 2005-2008.

Elements of context: FACE Council Grant

If necessary, you may annex a document to this application form

U.S TEAM

Other request(s) for 2005-2008

Have you already obtained other financing for this Project ? Yes No

From which source ?

French American Cultural Exchange Program

With the same partner ? Yes No

If yes:

For what amount ? \$69,200

For which period ? Over 3 years, 2005-2008.

Elements of context: FACE Council Grant

If necessary, you may annex a document to this application form

Other request(s) for 2008-2009

Have you already obtained other financing for this Project ? Yes (PENDING)

From which source ?

Digital Media and Learning Knowledge-Networking Competition (sponsored by the MacArthur Foundation)

With the same partner ? Yes No

If yes:

For what amount ? \$74,875.00

For which period ? February 2008 to March 2009

Elements of context:

SAIC submitted a grant request in the amount of \$74,875.00 to the Digital Media and Learning Knowledge-Networking Competition (sponsored by the MacArthur Foundation) for a closely related infrastructure project under the direction of Allan Labb, Associate Dean of Technology Planning at SAIC.

The goal of this project is to cultivate a global community of ideas and advocate imaginative actions using the latest digital, web-based communication and distance collaboration tools. This network will permanently improve the current networking capacity for SAIC departments who are currently engaged in global collaborations, like the department of Art & Technology.

If necessary, you may annex a document to this application form

Other request(s) for 2008-2009

Have you already obtained other financing for this Project ? Yes (PENDING)

From which source ?

Caterpillar Inc.

With the same partner ? Yes No

If yes:

For what amount ? \$10,000 per year

For which period ? February 2008 to February 2010

Elements of context:

SAIC is working on a proposal to Caterpillar Inc. to request funding for this research program. We noted that Caterpillar has a history of giving to experimentation in robotics, etc., and we believe that our research goals put forth here are in line with their giving history.

If necessary, you may annex a document to this application form

5 / PROJECT DESCRIPTION AND RATIONALE

5.1 / DESCRIPTION OF THE PARTNERSHIP:

DISCIPLINE(S), SCHOOLS OR/AND DEPARTMENTS INVOLVED, LEVELS (MASTER, PHD, POST DOC, RESEARCH), SPECIFIC OBJECTIVES OF THE COLLABORATION . (YOU CAN USE ONE OTHER SHEET AT MOST).

Audiences have eyes as well as ears. — John Cage

The School of the Art Institute of Chicago (SAIC) is proud to have provided a world-class art and design education since its founding in 1866. Cultivating creativity and innovation in its curriculum, SAIC's faculty and students have extended the School's influence on contemporary art and design throughout the United States and around the world.

We are pleased to again submit an application to PUF after having had the good fortune of receiving a FACE grant during its maiden year. As this marks our final year, we believe that we are in a position to hone our research and make even greater strides in the ensuing years. While our first three years of research delved into several areas of investigation: sound, Virtual Reality (VR), telecommunications and streaming, mecatronics and light, we submit that a logical transition would be to focus on the areas that proved most fitting and fruitful to the strengths of each institution.

We observed quickly that sound was an indispensable element in all of the work, and that there is a significant advantage in placing it in the forefront as we study the sound-space continuum in the realm of the physical and virtual space. Such interaction will advance the research that has already begun between the Sound Program and the Art and Technology Program at the SAIC, and Locus Sonus, a collaborative facilitated by Peter Sinclair (ESAA) and Jérôme Joy (Villa Arson, Nice). Furthermore, Locus Sonus has expanded in collaboration with institutions across France, and given the SAIC's deep history of sound experiment—perhaps the longest standing Art & Technology and Sound Programs of any art schools in the US—one could understand how easily we acclimated to common research. So far, we have found common interest in sound research using languages such as *Mac/MSP*, *Pure Data* (open source), *Python*, *Processing*, *STREAPS*, etc., as well as homemade and commercial interface hardware such as the Arduino Board and ArtBus (see attached file, [transatlab.pdf](#) or <http://www.transatlab.net/>).

In addition, we will continue to explore the relationship between the physical and virtual domain, visual as well as acoustic through our VR labs. Since 2001, SAIC has maintained an active teaching and research lab featuring a C-Wall VR system, a projection-based interactive stereoscopic display based on the well-known CAVE technology.

In order to develop collaborative virtual environments, a VR lab had to be developed in Aix. In 2007, Ricardo Garcia (ESAA), Ben Chang (SAIC), and Robb Drinkwater (SAIC) successfully built a C-Wall system at ESAA, using computers from the Atelier 3D and a new stereoscopic rear-projection screen. The January 2007 workshop saw the completion of this system, experimental pieces in VR by students, and plans for the development of a multi-user interactive environment based on soundscapes and virtual audio.

Hence, the time was right for the development of other solutions for immersive environments, with specific goals in mind. These included cross-platform compatibility; compatibility with both the 3DSMax and Maya modeling packages for Windows and Linux; the use of free and open-source software; low technical learning curve; low-cost motion tracking; and compatibility with *Pure Data* and other digital sound programming languages. In 2007, faculty at ESAA and SAIC pursued research on developing this system, including evaluations of open-source graphics programming environments including OGRE, *Panda*, and *Open Scene Graph*; the use of the Nintendo *WiiMote* controller as a low-cost alternative to the Ascension Flock of Birds motion tracker; and evaluation of new developments in head-mount display technology. The two schools acquired matching sets of equipment, including the *eMagin Z800* head-mount, a pair of 3D "goggles" that gives the wearer a complete sense of immersion in virtual space. At SAIC, the z800 was integrated into the existing CAVE/C-Wall lab, used in student projects, and installed as part of a month-long public exhibition of student VR work in Chicago. Other student projects laid out the framework for integrating the OGRE game engine, the *WiiMote* motion tracker, and *Pure Data* using the Python programming language in Linux. At ESAA, faculty and students developed the framework for integrating these same components - the head-mount display, the *WiiMote*, and the *Python* programming language - with the *Panda3D* graphics engine on Windows.

These efforts provided the groundwork for the January 2008 workshop in Aix, which will focus on the production of a two-player virtual environment for the exploration of virtual soundscapes over a three-week period. This workshop will serve two experimental purposes in addition to the primary artwork production: evaluation of the new VR system in an educational environment, and the development of working processes with the group of students from SAIC and ESAA which can be carried forward into collaborations and linked courses over the next two years.

We will continue to work in sound and VR, not as separate entities, but as complementary systems to explore the psychology and sociology of new environments both real and virtual. A preliminary workshop investigating how to integrate sounds and objects in the physical world with virtualized settings in *Second Life*, took place at the SAIC with faculty from both institutions. In-house hardware interfaces for real-world object control and interactivity have been recently developed by Ed Bennett (SAIC) – the ArtBus, and Jean-Pierre Mandon (ESAA) – the PIC. These devices are expected to play an increasingly major role in the relationship of the virtual world and physical objects in the areas of mecatronics, yet another interest shared among our students and faculty (see *TransAtLab*).

As a major aspect of our continued relationship, advanced graduate students or resident “fellows” (post Masters level) and faculty would step up communication via teleconferencing. Our communal group projects rely on various “tele techniques,” i.e. interfaces capable of sending and receiving multiple audio streams from multiple locations) CAVE (VR teleconferencing and physical motion transfer via internet). The ESAA and the SAIC successfully participated in long distance virtual lectures and conferences. Over a proposed three-year period, we propose that the ESAA and SAIC conduct much of the research virtually over improved and dedicated Internet trunk lines. New research and teaching strategies are inevitable. After three years, we would expect to see a different and invigorated academic syllabus and research methodology in the arts.

5.2 / JUSTIFY THE ORIGINALITY AND THE INNOVATIVE ASPECT OF THE PROJECT:

The *Transatlab* project is at the cutting edge of new technologies and their application to artistic creation. An important part of the two schools' activities involve the creation of new platforms for artistic creation and their integration into the pedagogical process.

One of the central aspects of *Transatlab* will involve the further development of new pedagogical and artistic tools, based on ideas and techniques explored in the original three year face project by the Chicago/Aix team. Some of the domains of this work included live networked sound streams and algorithmic sound generation, 3d virtual reality immersive environments (cave) with creative tools for virtual world creation, networked electronics and robotics, as well as innovative interfaces using live video analysis for gesture recognition.

In the second phase of its development, *Transatlab* proposes a new approach from the participating departments centering around more specific research-based collaboration that will extend these activities. It also intends to create a pedagogical platform taking place both on-site as well as online, using network tools to coordinate the two sites and encourage further exchange of expertise.

Instead of merely exchanging students within the framework of an inter-school exchange program, a very small group (4-6) of top-level graduate students will be invited to participate in trans-disciplinary trans-atlantic research projects initiated by the departments within the two schools. The goal is to allow graduate and recently graduated "fellows," whose work already or potentially engages the research aims of the schools, the time and resources to develop this work into a platform for artistic creation

What makes sound study at art schools different than music at conservatories is that here composers and sound artists use sound as material, much like a sculptor or painter. That is, the physical and acoustic properties of sound are pre-eminent; sound is not simply the medium through which music passes, but a structural, perceptual, environmental, social and psychic phenomenon. Our use of sound research and performance via the Internet has taken us into the realm of an audio/neural network—an area ripe for more experimentation. Another look at the *Transatlab* site (attached Pdf) shows our current involvement with issues of audio streaming, live and virtual performance, sonic environments, aural and visual memory.

Distance learning is becoming increasingly widespread. In our research, we see telecommunications: audio and video streaming, web broadcasting, video conferencing, Internet art, and other developments that have gained permanence. To the art world the ramifications are abundant, particularly in a reevaluation of what it is to be an artist and how one defines authorship in art and research. In the creative arts as in life, young artists tend to be the barometer of change and trends. Institutions scurry to define "interdisciplinary" well after their students are already practicing it. We feel that graduate students, resident fellows and faculty have much to gain from the exchange program. Our faculties and students are enlivened by globalization through the immediacy of the Internet. We have already begun transatlantic interactions. It is therefore reasonable to presume, considering the natural convergence, past history, and excellence of both the SAIC and the ESAA, that this new collaboration will be long-lived and highly beneficial to Franco-American relations.

5.3 / EXPECTED BENEFITS OF THE COLLABORATION FOR THE LEAD US PARTNER, INCLUDING THE IMPACT ON THE INTERNATIONALIZATION OF YOUR INSTITUTION.

International recruitment efforts at the SAIC are carried out mainly by the Office of International Affairs and the Office of Admissions. International enrollment at the SAIC has increased to almost 25%, a high percentage for an art school with an overall student population of 3,000. French exchange students arrive in a well-prepared structure designed to ease their adaptation into their new physical and educational environment.

This structure serves and addresses the needs of our growing international population—currently from 38 countries—to create a school climate which welcomes and respects cultural diversity and prepares our students for effective participation in global citizenship. In addition to this permanent service to the international student population at SAIC, other initiatives have been recently implemented to encourage SAIC domestic students to internationalize their experience. An increase in French students will enrich the composition of international enrolment at SAIC, which is currently led by Asian countries.

Through a recent gift from the Nuveen Benevolent Trust, we are pleased to establish the Nuveen Center for International Students during the 2007-2008 academic year at the School of the Art Institute of Chicago. In an attempt to encourage cross-cultural interaction, a space has been designated on the 16th Floor of the School's 162 Residence Hall as the *Nuveen Center for International Students*.

Students residing in either the 162 Residence Hall or the Chicago Building will have access to both the space devoted for international collaboration and related programming. For the 2007-2008 academic year, strategic programming will encourage cross-cultural learning through the leadership of the Associate Dean of Student Affairs.

5.4 / Expected benefits of the collaboration for the lead French partner, including the impact on the internationalization of your institution.

ESAA has for some years actively encouraged international contacts. These are active partnerships, with the exchange of teachers and pupils and common workshops. The initial collaboration with SAIC through the face grant has meant that a warm and sincere relationship has evolved between the teaching staff of both institutions, creating a model on which our partnerships are based. Our US partners have brought their expertise, different materials and working methods, all of which have been enriching to our joint experience. The staff and students on both sides have benefited hugely from the transatlantic input. The momentum that has developed from the initial face exchange programme will be enhanced and developed further as the project progresses from a simple exchange of skills into a serious research project.

ESAA, thanks to its much smaller size, has easy access to the exchange between departments and its techniques of recycling and the re-employing of materials are truly innovative. ESAA expects that the new research laboratory transatlant will deepen our initial ties and lead to joint teaching programs. The initial aim is to transfer credits between the institutions, to publish our research online, all of which will bring a wider public to the school and its activities. The aim is to continue our joint work and to continue developing together creating a solid research laboratory between the two institutions and countries.

6 / OUTCOMES OF THE PROJECT

6.1 / EXPECTED OUTCOMES OF THIS PROJECT:

JOINT AND DUAL DEGREES, EDUCATIONAL INITIATIVES, PUBLICATIONS ; COMMUNICATIONS ; SYMPOSIUMS

There will be regular online publications with workshops, research and teaching being regularly updated via the *Transatlab* website. Conferences, real and virtual, will also be used to better communicate *Transatlab*'s research activities to a wider public.

Students and teaching staff will be involved in two annual joint workshops on both sides of the Atlantic (Aix & Chicago), which could also be broadcast online in real-time.

A yearly symposium will also take place in either Aix or Chicago.

6.2 / REGIONAL PERSPECTIVES:

EXISTING OR PLANNED PARTICIPATION IN EUROPEAN/ NORTH AMERICAN PROGRAMS; NAMES AND PARTNERS.

Since 2005, the ESAA has actively pursued its quest for potential international partners. It looks for dynamic working partnerships. The working relationship that the ESAA has developed with SAIC is the example by which it seeks its bilateral partners. In 2007 ESAA was awarded a charter in the European Union's 'Life-Long learning-ERASMUS' programme until 2013. It is hoped to expand this into an 'Erasmus mundus' charter after a few years.

ESAA is also part of a larger network of all the art schools in southern France, and can thus use these partnerships as and when necessary to benefit the *Transatlab* project and its recognition both in France and abroad. The Locus Sonus research laboratory involves three schools (Aix, Marseille and Nice) and is an active part of the *Transatlab* project.

Concerning North American partnership agreements, ESAA also has bilateral agreements with the University of California, Irvine, and UQAM in Montreal, Canada.

7 / ADDITIONAL INFORMATION (for joint research projects only)

7.1 / TEAMS' PRESENTATIONS

6.3 / OTHER INTERNATIONAL PERSPECTIVES:

SAIC has established special relationships with established programs abroad whereby courses are offered in their studios in collaboration with SAIC faculty and faculty from the respective programs. These programs are open to SAIC students and to the public on a space available basis.

For example, the Prague winter and summer programs are offered in cooperation with the Academy of Fine Arts in Prague. This program offers students of the visual arts the opportunity not only to learn about art in Prague but to make it as well. Courses are offered in their studios and with their teachers during the summer. SAIC collaborates with their students and teachers on studio projects in the winter.

The studio work is accompanied by a series of lectures, informal seminars, museum visits, artists' studio visits, and excursions to Vienna and other related locations. The intention is to fully immerse students into the art, history, culture, and life of Prague while also giving them the chance to do studio work while they are here. Students are encouraged to respond visually to this new culture and information. Students are encouraged to produce visual documentation and interpretations of their experiences in Prague through painting, drawing, digital photography, printmaking, video, computer technology, or any combination of these media.

Study trips are also led by SAIC faculty members and usually are two to three weeks, or five to six weeks in length during the winter and summer interims. The type and number of credits vary for each study trip. Destinations have included Cuba, Laos, Vietnam, Cambodia, Thailand, China, Tibet, Germany, South Africa, Mexico, Prague, London, Ireland, Italy, and France.

An exchange program between excellent institutions of higher education is particularly likely to benefit the international position of France when it takes over the rotating presidency of the EU in the second half of 2008. In this favorable context, renewed attention is directed at activities and interactions designed to highlight French culture, and press releases are more likely to generate media coverage.

The role of the SAIC Office of Communications is to generate interest in the local and national media about ongoing events involving the SAIC community.

ESAA has strong contacts with many parts of the developing world (China, Pakistan, Brazil and North Africa) as well as its European partners (the Czech Republic, the UK, Belgium, Portugal, Spain and Hungary). It is hoped that the research work between Chicago and Aix will produce a dynamic for our continued work with our partner institutions and create a model of best practices that will be exemplary to schools involved in artistic research.

6.4 / PRESENT OR CONSIDERED INDUSTRIAL PERSPECTIVES:

The results of the January 2007 workshop pointed to the value of continued research and refinement of the virtual reality system itself. VR is a continually evolving field, but one driven largely by industry and military applications - flight simulators, medical training, visualizations for pharmaceutical and petrochemical applications. The barriers to artists continue to be cost, accessibility and ease of use—VR technology in general tends to be expensive and proprietary, and also requires a high level of expertise in computer engineering.

This also points to the growing market applications of virtual reality research, and the potential employability of artists familiar who, by the very nature of the creative process, push technology beyond what it is designed to do, sometimes stumbling unto creative solutions. SAIC has already tested the interest of major corporations and corporate foundations, like Motorola and Caterpillar. The SAIC Office of Development is actively pursuing partnerships with an increasing number of corporate partners who see SAIC as an incubator of innovation.

SAIC's also offers students the most successful arts-related Cooperative Education Program (Co-op) in the country. SAIC's Cooperative Education Program received the National Society for Experiential Education (NSEE) Experiential Education Higher Education Program of the Year Award. Co-op is an internship program where students earn course credit and refine their career objectives while establishing a strong employment

U.S :

Peter Gena, SAIC
Ben Chang, SAIC
Ed Bennett, SAIC
Robb Drinkwater, SAIC
Brett Balogh, SAIC
Sylvia Ruzanka, SAIC (Indiana Universty, 2007-08)

France :

Peter Sinclair, ESAA
Ricardo Garcia, ESAA
Douglas Edric Stanley, ESAA
France Cadet, ESAA
Jean-Paul Mandon, ESAA
F. Lejault, ESAA

7.2 / EQUIPMENT AVAILABLE FOR THE PROJECT

U.S :

SAIC's teaching and research lab feature a stereoscopic rear-projection wall; a two-sensor *Ascension Flock of Birds* motion tracking system for precision eye and hand tracking; a dual-processor Xeon graphics workstation with professional *nVidia QuadroFX* graphics; and 4.1-channel spatialized audio controlled by a dual-processor Mac G4. Students create virtual environments in "Ygdrasil", a simple and intuitive programming language designed specifically for artists and designers with little or no prior computer programming experience. The software runs on the Linux operating system, and uses the *CAVELib* software to control video projections and motion tracking and SGI's *OpenGL Performer* software to generate real-time 3D images. Students working in this lab create 3D models using the Autodesk Maya animation and modeling application in an adjacent classroom of 13 dual-core 64 bit Linux graphics workstations.

In addition, the Art and Technology Programs operates a Mac Lab with 15 computers, as well as a Linux Lab (15 computers); a sensorium for multi-media presentation and distance learning activities; a kinetics, light and robotics lab; an electronics and circuit design lab; a metal shop; a CNC router (rapid prototyping device); a digital sound studio, a neon shop; and a holography lab. The Sound Department houses three basic sound studios, and two advanced digital and analog studios. In addition, facilities and equipment are available to us from the newly expanded and updated Architecture and Design Program.

France :

Hypermedia Department; 10 Computers
Computer Generated Image Department; 6 Computers
Robotics Department; 5 Computers, various mechanical and electronic tools
LINUX Sector: 6 computers
Video Department: 5 non-linear video-editing stations
Plus: Audio visual and conferencing equipment (webcams, video-projectors etc.)

Significant publications relative to the project (5 maximum)

U.S : Website at <http://www.transatlab.net/>

France :

Website at <http://www.transatlab.net/>