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BLUE CINEMA TV



COMPANY

Blue Cinema TV S.r.l. was founded in 1999, following in the footsteps of a family tradition of photography artisans dating back seventy years. The mission to "write with light," starting from the stages of photographic development and printing, extending to cinematography, high-definition digital and visual effects, constitutes its distinctive feature. The company is headquartered in Rome and operates in the [Independent Film Production](#) sector, [Technical Cinematography](#) and [research and development of New Immersive Visual Technologies](#).

Blue Cinema TV S.r.l. is specialised in producing [debut films by young filmmakers](#), for which it has received recognition from the [Italian Ministry of Culture](#) and [major international film festivals](#), as well as visibility from TV channels (Rai and Telewizja Polska) and [leading streaming platforms](#) (Amazon Prime Video, Apple TV, and Google Play).

With over thirty years of experience in the film industry, it has collaborated with [prestigious figures](#), including Giuseppe Bertolucci, Elisabetta Sgarbi, Varo Venturi, Michael Radford, Edmond Budina, Pasquale Squitieri, and Battiato.

Following its collaboration in the production of the first holographic opera, "Telesio (2011)" by Maestro Franco Battiato, the company embarked on a journey that led to surpassing the latest visual frontier: [interactive holographic cinematography](#).

Leveraging its extensive experience in both cinematography and technology, it successfully merged [technological innovation](#) with [artistic expression](#).

The company's main prerogative is the development of cultural projects aimed at [promoting, enhancing and disseminating local, regional, national, and international tangible and intangible cultural heritage](#).

In recent years, it has reached partnership agreements and exchanged know-how with [research bodies, universities, and institutions](#), aiming to carry out projects of increasingly higher [cultural, artistic and technological standards](#), as well as impactful in terms of [social and physical, sensory and cognitive accessibility](#). It is engaged in designing [new competitive industrial scenarios, researching, developing, implementing, and programming new functionalities for its patented methodologies](#).

IMMERSIVE TECHNOLOGIES

HI® - Human Interface

new visualization tools for the enjoyment of
interactive content

Italian Patent MISE UIBM n. 0001428984,
Italian Trademark MISE UIBM n.
3020190000082782

OLOS®

audiovisual interfaces that reproduce life-
sized interactive human beings

European Patent EPO n. 2965172, Italian
Patent MISE UIBM n. 0001416412, European
Trademark UAMI n.01115367, European
Design UAMI n.002572685- 001

I-CINEMA®

interactive immersive cinematography

Italian Patent MISE UIBM
n. 1020210000008852, Italian Trademark MISE
UIBM n. 3020230000067875

A man with grey hair and a beard, wearing a brown suit jacket, an orange vest, and a dark tie, stands in a dark room. He is looking directly at the camera. The background is dark with some blue light effects, including a glowing blue shape on the floor to the right.

ὄλος [olos][®]

Until now, interfaces capable of perfectly reproducing human expressions and appearance were considered an unattainable goal, despite representing a natural mode of interaction between human beings and machines.

By leveraging the pragmatic and effective fusion of human creativity and cutting-edge technology employed in IT (Information Technology) and digital cinematography, OLOS[®] has achieved that milestone and has challenged the belief that everything can be reduced to a mere engineering issue.

Starting from the acting of real individuals in various roles, they provide all the expressions and actions that interfaces subsequently use in interacting with users.

The interfaces present themselves and behave like human beings; therefore, the term that most naturally suits them is holographic humans.

[OLOS[®] Case History](#)



HI[®] Human Interface

The innovative patented method HI[®] Human Interface enables the visualization of interactive storyteller characters on flat audiovisual devices of customizable size. It can exploit virtual transparency to reproduce both real and virtual environments.

HI[®] Time Gate allows time travel and scenario reconstruction by entrusting storytelling to interactive characters from the past, creating a perfect overlay between reality as it was and as it is now. It offers a unique and immersive outdoor experience that can be enjoyed using simple devices without the use of visual filters.

HI[®] Trompe l'œil enables the reproduction of reality and maximises the sense of depth to create the illusion of not observing an artistic-technological element, but a real one, which is overlaid with a storyteller capable of interacting with users.

[HI[®] Case History](#)



Developed as part of a research and development process conducted by Blue Cinema TV, the patented methodology associated with the I-CINEMA® trademark consists of a procedure for creating a natural interactive interface. This interface is designed to establish a relationship between a user and a virtual character, resulting in a **correspondence between real objects available to the user equipped with sensors and virtual objects available to the virtual character**. With I-CINEMA®, each viewer can decide the course of the story and influence the destinies of the characters by triggering identification mechanisms.

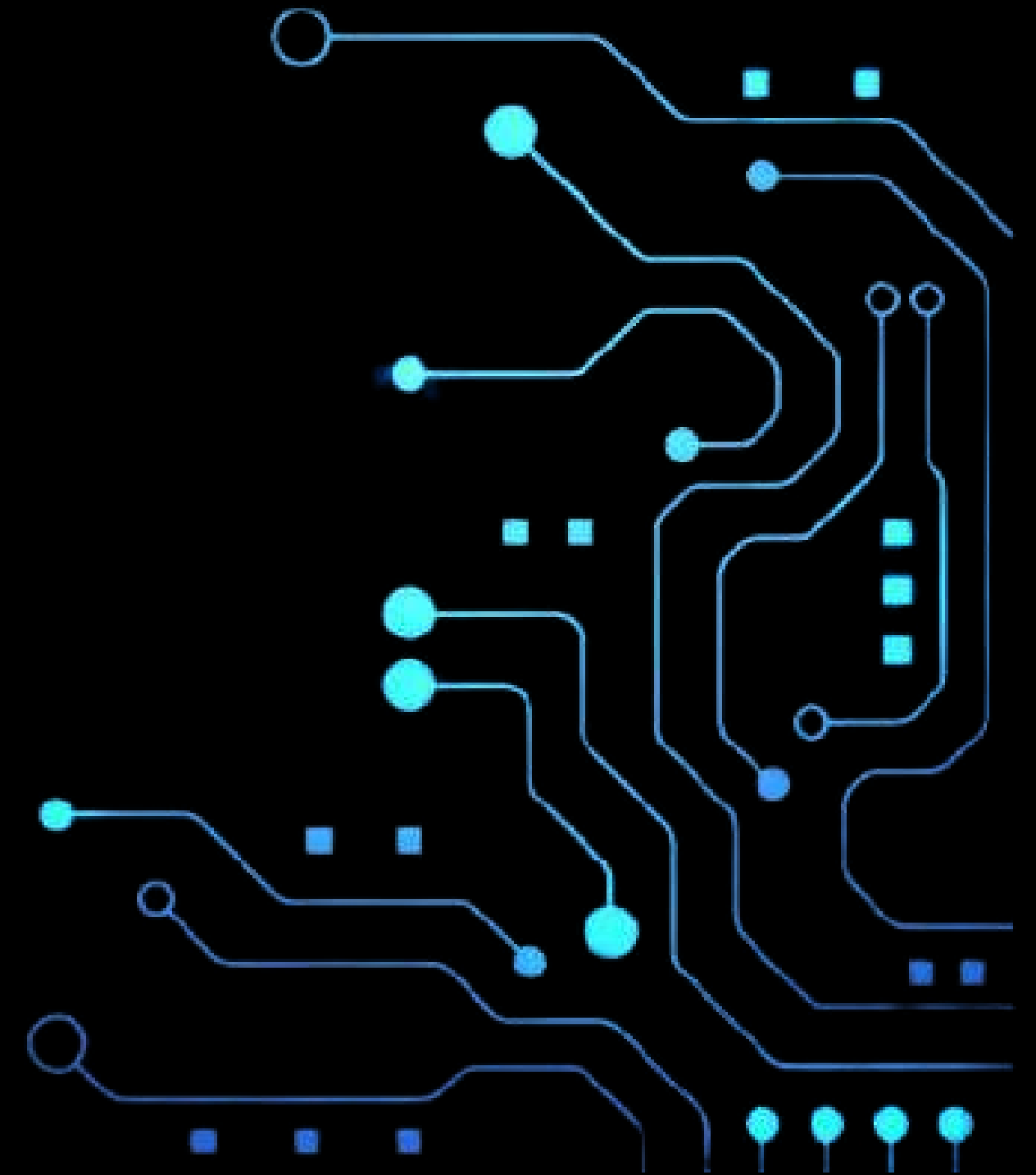
Each choice made during the viewing of the **interactive film**, besides leading to the development of narrative nodes, evokes multiple **emotions** and implies attentional cues, as viewers see, hear and grasp the essence of the impact of the actions taken by the characters of the interactive audiovisual, as well as the decisions made by them (and -indirectly- by themselves).

In order to activate interactive audiovisual content, it is possible to send input directly to the system (through the "**touch mode**"), as well as interact with elements located within the real environment, which are accessible in specific **immersive 4.0 environments** (TUI - Tangible User Interface).

FUNCTIONALITIES OF OLOS® AND HI® - HUMAN INTERFACE

The immersive installations featuring life-sized virtual characters developed through the patented methodologies associated with the OLOS® and HI® - Human Interface trademarks allow for the creation of an extended reality where users, without relying on sensory filters, can activate holographic-virtual content and engage in two-way communication with the interactive storytellers featured in the installations.

This is made possible through motion sensors detecting human presence, voice interaction functionality, gesture-based inputs (using GUI - Graphical User Interfaces via user-friendly touch screens) and the utilization of tactile elements that can trigger storytelling (TUI - Tangible User Interfaces).





It is possible to conceive and realize interactive pathways that give rise to **immersive experiences engaging and never alienating**, with the final users always at the center.

Through the tool of digital storytelling conveyed by **holographic and life-sized virtual characters equipped with artificial intelligence**, it is possible to combine the potential of interactive stories available in **multilingual and accessible modes for deaf, blind, visually impaired and cognitively challenged users**, with the sensory power of **VFX** (visual effects), indispensable tools for educational purposes and support for comprehension.

The developed immersive visual technologies present numerous strengths:

- The ability to establish a **close-distance relationship** between the user and holographic/virtual interfaces and to simulate a **peer-to-peer dialogue**, thereby significantly increasing users' emotional and experiential engagement.
 - The **high visual performance** of the interactive characters used as interfaces, elements that contribute to establishing a **fictional pact** with users.
 - The ability to display interfaces even in **controlled lighting environments**, meaning interactive holograms can be inserted into various contexts. Furthermore, the Italian patent associated with the HI® - Human Interface trademark represents an effective means of creating immersive installations even in **outdoor spaces and in full light**, while its further implementation involves the development of methodologies enabling the system's self-sustainability through solar energy in a **green perspective**.
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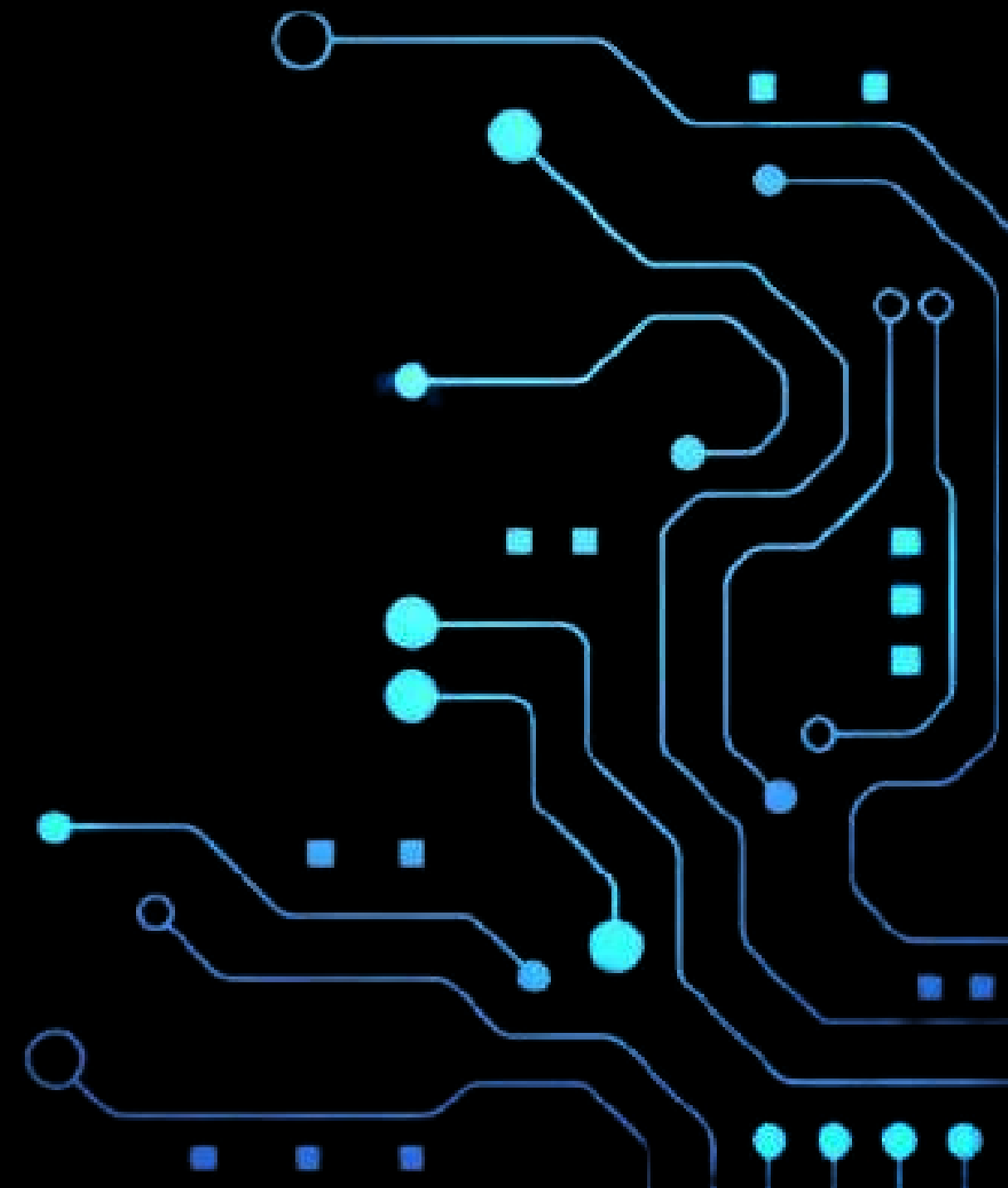
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- The use of [Artificial Intelligence](#) and [advanced sensor systems](#), which promote interaction between humans and machines as naturally as possible.
 - The use of [holophonic audio](#), capable of reproducing sounds in a three-dimensional manner, like a set of spheres moving in space.
 - The “[Multicultural Development](#)” multilingual interaction mode, which allows simultaneous access for users of different nationalities through personal devices, without the need to download applications or have access to a mobile network.
 - The “[Sign Language](#)”, “[Audio Description](#)” and “[SLD](#)” [modes](#) allow for the creation of pathways entirely designed for users with disabilities or sensory/cognitive difficulties, with the aim of ensuring comprehensive accessibility.
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- The potential activation of **visual, auditory and olfactory elements** placed even outside the space of technological installations, thanks to connections to external peripherals controllable through the same interactive storytellers.
 - The installations created through the patented methodologies associated with the OLOS® and HI® - Human Interface trademarks constitute integrated **cross-media** and **transmedia communication systems** in themselves. This is to be understood both literally (the various installations can communicate with each other) and conceptually (a narrative continuum can be delineated among the various communication means exemplified by the installations).
 - **Sustainability over time**, as all installations can be implemented multiple times in terms of content and additional functionalities without the need for component replacement and, consequently, without having to proceed with their disposal.
 - The **ease of use** for both users and the cultural venue staff responsible for operation.
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FUNCTIONALITIES OF I-CINEMA®

Through the interactive audiovisual application available online and on-site created using the patented methodology associated with the I-CINEMA® trademark, it is possible to implement a communication and tourist-cultural marketing strategy that distances itself from the use of conventional tools employed for promoting locations (e.g., commercials, public service announcements). It indeed involves the use of an engaging, familiar language capable of evoking emotions: the film grammar, of which Blue Cinema TV is highly knowledgeable due to its thirty-year experience in the film industry.

The greatest element of innovation lies in the fact that I-CINEMA® allows users to assume a new role: from passive spectators, they become active protagonists, as during the viewing they can make choices that determine the course of the film itself.



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- Regarding the possibilities for viewing, the interactive audiovisual I-CINEMA® can be watched online via the web (streaming on demand). In addition to the option of including it within a dedicated section on a specific website, it can also be distributed through links via social media and shared through private channels. Therefore, its intrinsic characteristic is that it is [potentially viewable by anyone, anywhere](#).
 - Additionally, another conceivable way to [experience the interactive content on-site](#) is provided for all those who physically visit a specific location as tourists/temporary citizens. Through virtual portals (markers/QR codes), they will be able to access snippets of cinematic content related to the interactive audiovisual I-CINEMA®.
 - It is an innovative and engaging digital promotional and valorisation tool, with a strong [educational component](#). It is capable of reaching diverse audiences thanks to additional features envisioned with inclusive [design and access for all](#) in mind. This includes multilingual mode as well as functionalities designed for users who are [visually or hearing impaired](#).
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- I-CINEMA® is structured to also serve as a [tool for investigation and study](#). Indeed, the integration of an indicator within the interactive audiovisual is foreseeable, undoubtedly more effective than conventional surveys, questionnaires, or interviews. This involves a bespoke [algorithm](#) designed to [monitor and categorise user choices, which can then be transformed into data serving as the basis for potential studies](#). The results may lead to the examination and formalisation of activated processes, contributing to the [dissemination of best practices](#), including through [scientific publications](#) in leading industry journals in collaboration with the partner [University of Tuscia](#)
 - It is possible to foresee an additional feature, whereby users can access additional information on a specific topic during the viewing of the audiovisual content through [links to websites](#), as well as [integration with online booking systems](#).
 - It is a [sustainable, flexible and dynamic technological infrastructure](#), which is pre-programmed to manage future workload increases (new content/data), as well as to accommodate the integration of new features within additional projects (new foreign languages, different accessibility functionalities, system upgrade readiness, remote maintenance and control), without the need for further significant investments.
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EXPERIENCES

As an ordinary member of the Technological District of Culture Lazio Center of Excellence, over the years of its activity Blue Cinema TV has obtained significant commissions and essential recognitions from institutions, administrations and other companies, playing a fundamental role in numerous projects in the cultural and research and development fields thanks to its patented methodologies.

Among the latest, it is worth noting:

- "Healthy carriers of diversity. Enhancement of the archival heritage of the former San Francesco Psychiatric Hospital - ASL RIETI" (Cultural venue: Museum of Mental Health of Rieti, Public notice: Cultural Technological District-Research and Development of Technologies for the Enhancement of Cultural Heritage).
- "Voice of the archives. Listening to the past with the technology of the future" (Cultural venue: Museum of the Mind of Rome, Public notice NRRP: Digital Transition of Cultural and Creative Organisations - Invitalia S.p.a. and Italian Ministry of Culture).
- "OLOS® Absence-Paradise", (Public notice NRRP: Digital Transition of Cultural and Creative Organisations - Invitalia S.p.a. and Italian Ministry of Culture).
- "DIGITAL ARTISTIC CULTURAL SPACE-DACS", (Public notice NRRP: Digital Transition of Cultural and Creative Organisations - Invitalia S.p.a. and Italian Ministry of Culture).
- "L'Aurora" by Guercino, Exhibition "The Triumph of Colour. Guercino and the Ludovisi in Rome", (Client: ALES S.p.A., Supply location: Scuderie del Quirinale).
- "I-CINEMA®: a new experimental interactive and multisensory method of cinematic enjoyment through new generation audiovisual technologies" (Rules on the development of cinema in Sardinia" - Year 2023 - Public notice L.R. 15/2006 - Studies and research).
- "I-CINEMA®: twin transition between green and digital", (Public notice NRRP: Ecological Transition of Cultural and Creative Organisations - Invitalia S.p.A. and Italian Ministry of Culture).

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- "Accessibility Project of the Civic Museum of Modern and Contemporary Art of Anticoli Corrado (Rome)" (Public notice NRRP for the presentation of project proposals for the removal of physical, cognitive and sensory barriers in public museums and cultural sites not belonging to the Ministry of Culture).
 - "Multimedia installation in the Civic Tower of the Municipality of Furci", (Rural Development Programme Abruzzo Region 2014/2022 Measure 19 "Support for LEADER local development" Sub-intervention 19.2.1.3.3 - "Small reception and visitor facilities").
 - "The Villa of Mamurra in the archaeological-naturalistic area of Gianola - The accessible recovery of the landing place" (Public notice for the enhancement of cultural venues in Lazio, Lazio Region).

- "Orsini Castle Project in Montenero Sabino" (Public notice for the enhancement of cultural heritage sites in Lazio, Lazio Region).
- "Interventions for further support to the development, digital technologies and energy efficiency of the Civic Naturalistic Museum of the Monti Prenestini", (Public notice for the enhancement of cultural heritage sites in Lazio, Lazio Region).
- "Pico Library: Time Gate on the literary village", (Public notice for the enhancement of cultural heritage sites in Lazio, Lazio Region).
- "OLOS® iCare" Experimental laboratory of telemedicine and holographic telepresence (Location: Department of Information Engineering, Infrastructure and Sustainable Energy, Mediterranean University of Reggio Calabria).

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- "DONA VITA DONA SANGUE", I-CINEMA® interactive film (Event location: Sapienza University of Rome, Client: University of Tuscia).
 - "ISENSE (Innovative Supporting sErVICES for uNiversity Students with dEafness)" funded by the European Union Erasmus+ programme, KA220 Action - Higher Education.
 - "Sistema in Festa" (Cultural venues: Five Museums part of the Territorial Museum System of the Monti Prenestini and the Giovenzano Valley, Public Notice: Lazio Region "LA CULTURA FA SISTEMA 2019").
 - "OLOS® for CINTEST - Experimental Laboratory for Inclusion" (Location: Department of Economics, Engineering, Society and Business, University of Tuscia).
 - "Immersive Caves", cultural venue: Natural Monument of Falvaterra Caves and Rio Obaco (Falvaterra), Public notice: Lazio Region "Enhancement of Cultural Heritage Sites of Lazio 2020".

- "Intervention for the Enhancement and Extraordinary Maintenance of the Museum" (Cultural venue: Museum of Energy (Ripi), Public notice: Lazio Region "Enhancement of Cultural Heritage Sites of Lazio 2020").
- "OLOS® Domizia" and I-CINEMA® interactive film "Story of the Spoletino excavation" (Cultural venue: new Virtual Museum of Civitella d'Agliano (VT), Client: Municipality of Civitella d'Agliano).
- "Interventions to support Development, Digital Technology, Plant Engineering" (Cultural venue: Natural History Museum of Monti Prenestini (Capranica Prenestina, Rome), Public notice: Lazio Region "Enhancement of Cultural Heritage Sites of Lazio 2020").
- "Unitus's Cultural RE-Discovering through Digital Innovation: CREDI InGradi" (Location: Complex of S. Maria in Gradi, Public notice: Italian Ministry of Culture "Culture Fund").

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- "Project for the Enhancement of Archaeological Parks e-Archeo" (Cultural venues: National Archaeological Museum of Cerveteri and Archaeological Museum of Sirmione, Client: Ales S.p.A. - Italian Ministry of Culture).
 - "Civic Museum Project - City of Cave" (Cultural venue: Civic Museum City of Cave (Rome), Public Notice: Italian Ministry of Culture "Allocation of the operating fund for small museums").
 - "OLOS VISIT" (Cultural venue: Museum of Agro Veientano of Formello (Rome), Public Notice: Lazio Region "L'IMPRESA FA CULTURA 2019").
 - "Lancisiana Virtual Library" (Cultural venue: Lancisiana Library, Public Notice Lazio Region: "L'IMPRESA FA CULTURA 2019").

- "Enhancement of the Museum of Anticoli Corrado" (Cultural venue: Museum of Modern and Contemporary Art of Anticoli Corrado, Public notice: Lazio Region "Enhancement of Cultural Heritage Sites of Lazio 2020").
- "PRE.GIO - The Logic Museum System" (Cultural venues: Territorial Museum System of the Monti Prenestini and the Giovenzano Valley, Public Notice: Lazio Region "L'IMPRESA FA CULTURA 2019").
- "Interactive Digital Resurrection" (Cultural venue: Museum Laboratory of the Mind of Rome, Public Notice: Lazio Region "L'IMPRESA FA CULTURA 2019").
- "Goethe Back to Rome" (Cultural venue: Villa of Massenzio, Public Notice: Lazio Region "L'IMPRESA FA CULTURA 2019").

Among the main research and development projects it is worth noting:

- [Voucher Digitalisation of SMEs 2024](#), Regional Programme ERDF Lazio 2021-2027 - Lazio Region Directorate for Economic Development, Production Activities and Research.
- ["OLOS® GIS"](#), co-financing of research and development projects for cultural heritage and technologies for culture - Cultural Technological District.
- ["Interactive Digital Storytelling and new innovative systems in the training of the professional figure of the Digital-Storyteller and Content Curator"](#), co-financing of R&D projects for cultural heritage and technologies for culture - Cultural Technological District.
- ["OLOS® Music Sequencer"](#), Public notice: Lazio Innova "CREATIVITY 2020".
- ["DISEGNI+2"](#), Call: MISE Unioncamere.
- ["BREVETTI+3"](#), development of HI® Multicultural Development (HI®MCD), Call: MISE Invitalia.
- ["BREVETTI+2"](#), development of OLOS® Event Manager (O®EM), Call: MISE Invitalia.

- ["OLOS® DSA, Development of innovative methodologies, based on artificial intelligence and immersive technologies to support access to museum culture for children and young people with Specific Learning Disabilities \(SLD\)"](#), Research Doctorate: "Engineering for Energy and Environment" XXXVII cycle, Blue Cinema TV and University of Tuscia, in collaboration with the University of Córdoba, co-financed by the Lazio Region.
- ["Processes of Digital Geostorytelling for the social and cultural revitalization of smaller historical centers"](#), Research Doctorate XXXVIII cycle in Historical Sciences and Cultural Heritage, Industrial Doctorate Project Blue Cinema TV and University of Tuscia.
- ["Extension of the Italian patent linked to the European trademark OLOS® at European level in 25 member states and launch of an internationalization strategy"](#), Public Notice: "Incentives for the purchase of internationalization support services for SMEs" Lazio Region 2019.
- ["OLOS® Music Engineering \(O®ME\)"](#), Public notice: Lazio Innova "CREATIVITY 2020".
- ["MARCHI+3"](#), Call: MISE Invitalia.

PUBLICATIONS

- 1.D. Baldacci, R. Pareschi, *The OLOS® Way to Cultural Heritage: User Interface with Anthropomorphic Characteristics*, in "World Academy of Science, Engineering and Technology International Journal of Civil and Architectural Engineering" Vol:14, No:10, 2020, pp. 331-335. Awarded BEST PAPER at the IRC2020 XIV INTERNATIONAL RESEARCH CONFERENCE.
- 2.F. Marulli, R. Pareschi e D. Baldacci, *The Internet of Speaking Things and its Applications to Cultural Heritage, IoTBD* in "Proceedings of the International Conference on Internet of Things and Big Data", 2016, pp. 107-117.
- 3.M. Materazzini, A. Melis, A. Zingoni, D. Baldacci, G. Calabrò, J. Taborri, *Which Are the Needs of People with Learning Disorders for Inclusive Museums? Design of OLOS®—An Innovative Audio-Visual Technology*, in "Applied Sciences - MDPI", Volume: 14, Number: 37112024, 2024, pp 1-25, <https://www.mdpi.com/2076-3417/14/9/3711>
- 4.A. Melis, P. Fornai, E. Yeguas-Bolívar, M.D. Redel-Macías, M. Hilzensauer, A. Pecher, J. Taborri, M. Leisenberg, S. Rossi, *The use of artificial intelligence for sign language recognition in education: from a literature overview to the ISENSE project*, in "IEEE", 2023, <http://hdl.handle.net/10396/26482>
- 5.A. Melis, M. Materazzini, F. M. Baldacci, M. Fiori, L. Carbone, D. Baldacci, J. Taborri, *I-CINEMA®: an innovative interface for interactive cinema and audio-visual contents using dedicated sensor systems*, in "Applied Sciences - MDPI", 2024 (in press).

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