# EUROPEAN CURRICULUM VITAE FORMAT



#### PERSONAL INFORMATION

Name

Address

Telephone

Fax

E-mail

carlo.mantovani@gmail.com

182, VIA A. PORZIO, 26041, CASALMAGGIORE, ITALY

**MANTOVANI CARLO** 

+39 349 5838926

Nationality

Italian

Date of birth

21/05/1974

#### WORK EXPERIENCE

• Dates (from - to)

· Name and address of employer

. Type of business or sector

Occupation or position held
 Main activities and responsibilities

From April 2010 to present

Consiglio Nazionale delle Ricerche - Istituto di Scienze Marine (CNR-ISMAR) Sede Secondaria di Lerici - Forte S. Teresa 19032 Pozzuolo di Lerici (SP) – Italy.

Public research institute.

Research Technologist.

Member of the local Physical Oceanography team.

Management of CNR-ISNAR High Frequency (HF) Radar infrastructure for ocean currents measurement within national and European projects focused on environmental issues (oil spill mitigation, connectivity between marine protected areas, fisheries management) and data management.

Member of Eurogoos HF Radar Task Team and coordination roles in several tasks of national and European research projects.

Contribution to scientific and technical papers.

Educational and outreach activities for science dissemination.

• Dates (from - to)

· Name and address of employer

• Type of business or sector

· Occupation or position held

From August 2001 to March 2010

Istituto Nazionale per la Fisica della Materia (CNR-INFM), Corso Perrone 24, 16152 Genova, Italy

Public research institute

August 2001 - June 2006 as technician, July 2006 - March 2010 as Research Technologist, at the INForMando laboratory for science communication and education.

MARCH 215 2018

· Main activities and responsibilities

Coordination and technical support in science communication projects.

Multimedia software programming: analysis, design and development of educational web games and animations.

Development and management of the INForMando IT infrastructure.

Design and management of the video streaming service and digital video recording and editing within the CNR-INFM National Schools in PhD programme.

Design of original interactive exhibits, evaluation of multimedia equipment and drafting of teaching methods and strategies in science exhibitions and educational laboratories.

### **EDUCATION AND TRAINING**

• Dates (from - to)

 Name and type of organisation providing education and training

Principal subjects/occupational skills covered

· Title of qualification awarded

 Level in national classification (if appropriate)

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 Name and type of organisation providing education and training

Principal subjects/occupational skills covered

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 Level in national classification (if appropriate)

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 Name and type of organisation providing education and training

Principal subjects/occupational skills covered

· Title of qualification awarded

• Level in national classification (if appropriate)

• Dates (from - to)

 Name and type of organisation providing education and training

Principal subjects/occupational skills covered

· Title of qualification awarded

• Level in national classification (if appropriate)

• Dates (from - to)

 Name and type of organisation providing education and training March 2015

Rockland Scientific International Inc., 520 Dupplin Road, Victoria, BC V8Z 1C1, Canada. Private company selling oceanographic instrumentation.

Training course at CNR-ISMAR lab on the oceanographic instrument *MicroRider*, for ocean turbulence microstructure measurements and its integration with the *Slocum G2* autonomous underwater vehicle.

Certificate of attendance

February 2015

Teledyne Webb Research, North Falmouth, MA 02556 USA. Private company selling oceanographic instrumentation.

Training course at CNR-ISMAR lab on the autonomous underwater vehicle *Slocum G2* management

Certificate of attendance

May 2011

Codar® Ocean Sensors, 1914 Plymouth Street, Mountain View, California 94043 USA. Private company selling oceanographic instrumentation.

Training course on the SeaSonde® High Frequency Radar management for ocean currents and waves measurement

Certificate of attendance

June 2002

Cineca, via Manganelli 6/3 – 40033 Casalecchio di Reno, Italy. Nonprofit Consortium, made up of 70 Italian Universities, 8 Italian Research Institutions and the Italian Ministry of Education Summer School on Scientific Visualization and 3D Interactive Graphics.

Certificate of attendance

September 1993 to July 2001

Physics Department, University of Parma, Italy

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· Principal subjects/occupational skills covered

· Title of qualification awarded

· Level in national classification (if appropriate)

Mathematics, Physics, Information Technology, Electronics

MSc in Physics

Laurea Magistrale in Fisica

Dates (from – to)

· Name and type of organisation providing education and training

· Principal subjects/occupational skills covered

· Title of qualification awarded

· Level in national classification (if appropriate)

September 1998 - July 1993

Liceo Classico G.Romani, via Trento 15, 26041 Casalmaggiore, Italy.

Italian literature, classical Latin and Greek languages and literature, History, Philosophy

Equivalent of Secondary School Diploma focused on Humanities Diploma di Maturità Classica

# **PERSONAL SKILLS** AND COMPETENCES

#### MOTHER TONGUE

Other language(s) Self-assessment European level (\*)

# **English**

French

#### **ITALIAN**

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
B2	C1	B2	B2	B2
B1	B2	B1	B1	B1

# SOCIAL SKILLS AND COMPETENCES

Inclination to teamwork, experience on international cooperation within several European research and science dissemination projects.

Participation to international conferences, workshops, meetings. Contribution to experimental activity.

Outreach and educational activity with schools and generic audience, training of scientific tutors within science festivals and other events focused on science dissemination.

Interaction with private companies for evaluation and purchase of scientific instrumentation, technical equipment and services.

# **ORGANISATIONAL SKILLS** AND COMPETENCES

Experience in complex projects drawing up and management, work and budget planning related to experimental activity and research infrastructure management.

# **TECHNICAL SKILLS** AND COMPETENCES

Knowledge of HF radar operating principles. Experience on legal and technical requirements for design, implementation and operation of an HF radar network (system deployment, quality assessment, remote communication, data format and quality control, data transfer and archiving, near real time data dissemination).

Understanding of several instruments working principles, technologies and methodologies in the field of the physical oceanography.

Good knowledge and skill on Information Technology and computer hardware (operating systems, programming languages, components and peripherals). Good knowledge of Linux, Apple® Mac Os X and Microsoft® Windows operating systems.

Experience on computer and server administration (LAN setup, virtualization, implementation of strategies for data security and integrity).

Good experience in design and development of animations, multimedia interactive software, web games and applications.

Development of static and dynamic web sites with basic use of HTML, JavaScript, PHP, MySQL.

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Good knowledge of digital audio and photo-video editing and processing software.

Basic use of Matlab®

DRIVING LICENCE(S) Class B (European classification)

**ADDITIONAL INFORMATION** Contact persons for references:

Dr. Griffa Annalisa – Senior Researcher at CNR-ISMAR of La Spezia - Italy Dr. Bianucci Marco – Senior Researcher at CNR-ISMAR of La Spezia - Italy

Prof. Fieschi Roberto - Professor Emeritus at the Physics Department - University of Parma -

Italy

**ANNEXES** 1 - List of publications

2 - List of projects and related tasks and roles

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#### ANNEX 1

#### **Publications**

Anna Rubio, Julien Mader, Lorenzo Corgnati, Carlo Mantovani, Annalisa Griffa, Antonio Novellino, Céline Quentin, Lucy Wyatt, Johannes Schulz-Stellenfleth, Jochen Horstmann, Pablo Lorente, Enrico Zambianchi, Michael Hartnett, Carlos Fernandes, Vassilis Zervakis, Patrick Gorringe, Angélique Melet and Ingrid Puillat, 2017. HF Radar Activity in European Coastal Seas: Next Steps Towards a Pan-European HF Radar Network, Front. Mar. Sci. | doi: 10.3389/fmars.2017.00008

Carlson DF, Griffa A., Zambianchi E., Suaria G., Corgnati L., Magaldi MG, Poulain PM, Russo A., Bellomo L., Mantovani C., Celentano P., Molcard A., Borghini M., 2015. Observed and modeled surface Lagrangian transport between coastal regions in the Adriatic Sea with implications for marine protected areas, Continental Shelf Research, ISSN 0278-4343, doi:10.1016/j.csr.2016.02.012

L. Bellomo, A. Griffa, S. Cosoli, P. Falco, R. Gerin, I. Iermano, A. Kalampokis, Z. Kokkini, A. Lana, M.G. Magaldi, I. Mamoutos, C. Mantovani, J. Marmain, E. Potiris, J.M. Sayol, Y. Barbin, M. Berta, M. Borghini, A. Bussani, L. Corgnati, Q. Dagneaux, J. Gaggelli, P. Guterman, D. Mallarino, A. Mazzoldi, A. Molcard, A. Orfila, P.-M. Poulain, C. Quentin, J. Tintoré, M. Uttieri, A. Vetrano, E. Zambianchi & V. Zervakis (2015): Toward an integrated HF radar network in the Mediterranean Sea to improve search and rescue and oil spill response: the TOSCA project experience, Journal of Operational Oceanography, pp. 1.13, DOI: 10.1080/1755876X.2015.1087184

Aliani S., M. Berta, M. Borghini, D. Carlson, A. Conversi, L. Corgnati, A. Griffa, M.G. Magaldi, C. Mantovani, S. Marini, L. Mazzei, G. Suaria, A. Vetrano, (2015). Biodiversity conservation: an example of a multidisciplinary approach to marine dispersal. Rendiconti Lincei. Scienze Fisiche e Naturali, 48, 26-37, DOI:10.1007/s12210-014-0357-2 (ISSN: 2037-4631)

Bussei P., Bianucci M., Fieschi R., Gambarelli L., Mantovani C., Merlino S. (2007) "WESPA, a multilingual European Project for teaching Energy and Semiconductors concepts using interactive approaches", J. of Materials Educations, 29 (3-4), 233

#### Under submission

Maristella Berta, Lucio Bellomo, Annalisa Griffa, Marcello Magaldi, Anne Molcard, Carlo Mantovani, Gian Pietro Gasparini, Julien Marmain, Anna Vetrano, Laurent Béguery, Mireno Borghini, Yves Barbin, Joel Gaggelli, and Céline Quentin, 2018. Wind induced variability in the Northern Current (North-Western Mediterranean Sea) as depicted by a multi-platform observing system, submitted to Ocean Science - Special Issue: Coastal marine infrastructure in support of monitoring, science, and policy strategies.

Simone Marini, Lorenzo Corgnati, Carlo Mantovani, Mauro Bastianini, Ennio Ottaviani, Emanuela Fanelli, Jacopo Aguzzi, Annalisa Griffa, Pierre Marie Poulain, 2018. Automated estimate of fish abundance through the autonomous imaging device GUARD1, submitted to Measurement.

Roberta Sciascia, Maristella Berta, Daniel F. Carlson, Annalisa Griffa, Monica Panfili, Mario La Mesa, Lorenzo Corgnati, Carlo Mantovani, Elisa Domenella, Erick Fredj, Marcello G. Magaldi, Raffaele D'Adamo, Gianfranco Pazienza, Enrico Zambianchi, Pierre-Marie Poulain, 2018. Linking sardine recruitment in coastal areas to ocean currents using surface drifters and HF radar. A case study in the Gulf of Manfredonia, Adriatic Sea, submitted to Progress in Oceanography.

Lorenzo Corgnati, Carlo Mantovani, Annalisa Griffa, Maristella Berta, Pierluigi Penna, Paolo Celentano, Lucio Bellomo, Daniel F. Carlson and Raffaele D'Adamo, 2017. Implementation and validation of the ISMAR High Frequency Coastal Radar Network in the Gulf of Manfredonia (Mediterranean Sea), submitted to IEEE Journal of Oceanic Engineering.

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Enrile F., Besio G., Stocchino A., Magaldi M.G., Mantovani C., Cosoli S., Gerin R., Poulain P.M., 2017. Evaluation of surface Lagrangian transport barriers in the Gulf of Trieste, submitted to Continental Shelf Research.

## Proceedings in international conferences

Annalisa Griffa, Daniel Carlson, Maristella Berta, Roberta Sciascia, Lorenzo Corgnati, Carlo Mantovani, Erick Fredji, Marcello Magaldi, Enrico Zambianchi, Pierre Marie Poulain, Aniello Russo, and Sandro Carniel. Surface Lagrangian transport in the Adriatic Sea (Mediterranean Sea) from drifters, HF radar and models: implications for fishery and Marine Protected Areas (2017). Geophysical Research Abstracts Vol. 19, EGU2017-7842, 2017

Corgnati, L.; Mantovani, C.; Griffa, A.; Bellomo, L.; Carlson, D.F.; Magaldi, M.G.; Berta, M.; Pazienza, G.; D'Adamo, R., "The ISMAR high frequency coastal radar network: Monitoring surface currents for management of marine resources," in OCEANS 2015 - Genova, vol., no., pp.1-8, 18-21 May 2015. doi: 10.1109/OCEANS-Genova.2015.7271524

Merlino S., Evangelista R., Mantovani C., Bianucci M., Fieschi R. (2015). Oceanography outreach and education in informal and non-formal learning environment, in OCEANS 2015 - Genova 18-21 May 2015 MTS/IEEE conference, doi: 10.1109/OCEANS-Genova.2015.7271661

Corgnati L., Mantovani C., Griffa A., Forneris V., Tronconi C., Santoleri R., Cosoli S., Serafino F., Raffa F., Uttieri M., Kalampokis A., Zambianchi E., 2015. The RITMARE Italian coastal radar network: operational system and data interoperability framework. Proceedings of the Seventh EuroGOOS International Conference. 28-30 October 2014, Lisbon, Portugal, 85-93, ISBN 978-2-9601883-1-8 85-93

Carrara P., Corgnati L., Cosoli S., Griffa A., Kalampokis A., Mantovani C., Oggioni A., Pepe M., Raffa F., Serafino F., Uttieri M., Zambianchi E. (2014) The RITMARE coastal radar network and applications to monitor marine transport infrastructures. EGU 2014, Geophysical Research Abstracts, 16: 14149

Merlino S., Evangelista R., Mantovani C. (2014). Methodoloy based on non-formal-learning and emotion-based learning for teaching physics in primary and lower secondary schools, Book of proceeding of International GIREP/MPTL 2014 Conference "Teaching/Learning Physics: Integrating research into practice", Palermo, 7-12 July 2014

Merlino S., Bianucci M., Mantovani C. and Fieschi R. (2014). Multimedia software "Archimedes and his work". A deepening path in Arkimedeion Museum of Siracusa, Book of proceeding of International GIREP/MPTL 2014 Conference "Teaching/Learning Physics: Integrating research into practice", Palermo, 7-12 July 2014

E. Zambianchi, P. Poulain , P. Zang , A. Kalampokis , M. Berta , M. Borghini , B. Buonocore , D. Cianelli , P. Falco , R. Gerin , I. Iermano , C. Mantovani , G. Nicolaides , T. Ozhokmen , S. Sofianos, M. Uttieri and V. Zervakis (2013) Surface circulation in the Gulf of Naples during the GELaTo 2012 experiment. CIESM 2013 Rapp. Comm. int. Mer Médit., 40: 117

Merlino S., Evangelista R. Bianucci M., Mantovani C. And Gambarelli L. (2013). Properties of glass, oil's formation...how to explain it? The secret is to amaze! Proceedings of European Geosciences Union General Assembly 2013 (April 7-12, Vienna, Austria). ISSN 1607-7962

M. Bianucci, R. Fieschi, L. Gambarelli, C. Mantovani, and S. Merlino, (2009), "Promoting and teaching "hard" science in an amusing way: the "Domus Archimedea" approach to Greek mathematics", (2009). In "Research, Reflections and Innovations in Integrating ICT in Education", proc. Of the V International Conference of Multimedia and Information and Communication Technologies in Education (m-ICTE 2009), Lisbona, 22-24 Aprile 2009. Edited by A. Méndez-Vilas, A. Solano Martín, J.A. Mesa González and J. Mesa González. Published by FORMATEX, Badajoz, Spain. ISBN of Collection: 978-84-692-1788-7

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M. Bianucci, R. Fieschi, L. Gambarelli, C. Mantovani, and S. Merlino, "Multimedia software as support for a self-explaining visit path in science museum: the Domus Archimedea experience" (2009). In: "Research, Reflections and Innovations in Integrating ICT in Education", Proc. of the V International Conference of Multimedia and Information and Communication Technologies in Education (m-ICTE 2009), Lisbona, 22-24 Aprile 2009.. Edited by A. Méndez-Vilas, A. Solano Martín, J.A. Mesa González and J. Mesa González. Published by FORMATEX, Badajoz, Spain (2009). ISBN of Collection: 978-84-692-1788-7

Bussei P., Bianucci M., Fieschi R., Gambarelli L., Mantovani C., Merlino S. "WESPA, a multilingual European Project for teaching Energy and Semiconductors concepts using interactive approaches" (2005). Proc. of "3rd International Conference on Education and Information Systems", Orlando, FL, JUL 14-17, 2005. Vol 1, Pages: 61-66 Published: 2005. Editor(s): Malpica F; Welsch F; Tremante A; Lawler.

## Other publications

Merlino S., Evangelista R., Mantovani C., Abbate M., Bianucci M. (2017). The sea: water that... sustains us! Contribution to F. Santoro et al. (eds). 2017. Ocean Literacy for All - A toolkit, IOC/UNESCO & UNESCO Venice Office, Paris (IOC Manuals and Guides, 80), chapter 2.1.13, 128-132. ISBN 978-92-3-100249-6

Bianucci M., Evangelista R. Gambarelli L., Mantovani C. and Merlino S. (2013). Report of PARMASCIENZALAB 2012 project, Edicta Edizioni, December 2013, Parma Italy. ISBN 978-88-89998-55-7

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# ANNEX 2

# Projects and related tasks and roles

Time period	Projects and tasks/roles			
2018 - 2020	CMEMS Insitu TAC Phase 2 (Copernicus Marine Environment Monitoring Service -			
2020	Call for Tenders 82-CMEMS-TAC-INSITU)  Task 6.1 SYSTEM EVOLUTION AND IMPLEMENTATION: HF Radars products. Coordinator for integration of near real time Total and Radial velocities of surface current into the Insitu Tematic Assembling Center (INSTAC) catalog. Contributor for integration of reprocessed data in the same framework.			
2017 – 2020	IMPACT - Port Impact on Protected Marine Areas: Cooperative Cross-Border Actions (original title: IMpatto Portuale su Aree Marine protette: azioni Cooperative Transfrontaliere. European Union Cross-border – Interreg V-A Italy-France Maritime Programme, simple project. CNR-ISMAR is leading partner)			
	<ul> <li>Contribution to the proposal preparation;</li> <li>member of the coordination team of the whole project.</li> <li>manager of the CNR-ISMAR HF radar network, upgrade and improvement of the HF radar infrastructure in the Ligurian-Thyrrenian Sea;</li> <li>coordinator of the Communication Component;</li> </ul>			
2017 (Accepted but not started yet)	Sicomar Plus - Cross-border system for marine safety against the risks of navigation and for the preservation of the marine environment (original title: SIstema transfrontaliero per la sicurezza in mare COntro i rischi della navigazione e per la salvaguardia dell'ambiente MARino, European Union Cross-border – Interreg V-A Italy-France Maritime Programme, strategic project)			
	<ul> <li>Contribution to the proposal preparation.</li> <li>(expected) CNR-ISMAR HF radar network management and improvement</li> </ul>			
2017 - 2021	SeaDataCloud - Further developing the pan-European infrastructure for marine and ocean data management (European Union H2020-INFRAIA-2016-2017)			
	<ul> <li>Contribution to WP8.3: definition of HF radar derived surfaced currents common data model for ingestion in SeaDataCloud data management system.</li> <li>Contribution to WP9.5: definition of HF radar derived surfaced currents Common Data Index (CDI) metadata model for ingestion in SeaDataCloud data management system;</li> </ul>			
2016 –	INCREASE - Innovation and Networking for the integration of Coastal Radars into			
2017	European mArine Services (CMEMS - Copernicus Marine Environment Monitoring Service - Service Evolution Call for Tenders 21-SE-CALL1)			
	<ul> <li>For HF radar derived currents: contribution to the definition of best practices for Quality Assessment and Quality Control and procedures for real time implementation, with focus on possible data integration into CMEMS;</li> <li>organization of INCREASE HF Radar Expert Workshop Sept.13th -15th, 2016 in Lerici (La Spezia - Italy);</li> </ul>			

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	o contribution to deliverable D1.1 Report on European HF Radar systems development				
	and roadmap for HF Radar products evolution in compliance with CMEMS needs;				
	o contribution to deliverable D3.1 QA best practices and protocols on QC for radial				
	and total HF radar data.				
2015					
2015 –	Jerico-Next - Joint European Research Infrastructure network for Coastal Observatory				
2019	- Novel European eXpertise for coastal observaTories (European Union H2020				
	Programme)				
	o for HF radar derived currents: contribution to the definition of an interoperable				
	common data model for data and metadata, contribution to the definition of best				
	practices for Quality Assessment and Quality Control;				
	o responsible for the <i>Virtual Access</i> to the CNR-ISMAR HF Radar network;				
	o contribution to deliverable D2.1 Report on the status of HF-radar systems and cabled				
	coastal observatories;				
	o contribution to deliverable D5.13 Recommendation Report 1 for HFR data				
	implementation in European marine data infrastructures;				
	o contribution to deliverable D3.3 Report on first methodological improvements on				
	• • •				
	retrieval algorithms and HF radar network design. Results obtained to date in				
	Subtasks 3.2.1-3.2.2 will provide first recommendations on the implementation of				
	improved techniques for HF radar systems.				
2012 –	RITMARE – la ricerca italiana per il mare. SP5-WP2-AZ3 – coastal radar network				
2016	implementation (National Flagship Project within National Research Programmes				
	funded by the Italian Ministry of University and Research)				
	<ul> <li>Manager of CNR-ISMAR HF Radar network;</li> </ul>				
	<ul> <li>hardware and software upgrade of the CNR-ISMAR HF Radar infrastructure;</li> </ul>				
	o contribution to the definition of a common data model for surface currents data and				
	metadata within the project partners involved into the Action 3;				
	o setup of a central node for real time radial HFR data management;				
	o deployment of two Codar SeaSonde HF radar systems in the Ligurian Sea near Cinque				
	Terre (La Spezia, Italy);				
	o contribution to experimental activity during the regional oceanographic campaign				
	DASPO in the Ligurian Sea;				
	o coordinator of the HF radar team for CNR-ISMAR in the last year of the project.				
	Coordinator of the first state for Civic Idivit in the last year of the project.				
2011 -	SSD PESCA - Decision Support System for Sustainable Management of Fisheries in				
2011 –	Southern Italy. WP5: HF coastal radar network for monitoring sea areas of critical importance for fishing (funded by Italian Ministry of Economics and Finance)				
2013					
	o Manager of CNR-ISMAR HF Radar network – deployment and operation of four				
	Codar SeaSonde HF radar systems in the south eastern Italy (Gargano cape and Gulf				
	of Manfredonia);				
	o contribution to experimental activity during the regional oceanographic campaign in				
	the Gulf of Manfredonia;				
W	o contribution to financial report.				
2011 -	TOSCA - Tracking Oil Spills & Coastal Awareness network – (European Union MED				
2013	Programme)				
».··***	o Collaboration with the National Institute of Oceanography and Applied Geophysics				
	(OGS) for HF radar network management in the Gulf of Trieste;				

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	o contribution to experimental activity during the regional oceanographic campaign in				
	the Gulf di Naples;				
10000	o contribution to financial report.				
2012 -	ParmaScienzaLab 2012 – Educational scientific laboratories for primary and secondary				
2012	schools of Parma province (funded by Cariparma Foundation, Parma, Italy)				
2010	Project coordinator				
2010	Parmascienza – Science Festival for science diffusion/popularisation towards citizens				
	(funded by Cariparma Foundation, Parma, Italy)				
	o Project coordinator				
2006 –	Esciential I.E. – European Science Festival: Itinerant Exhibitions. A network to enhance				
2007	the European dimension of the Genova Science Festival with the contribution of qualified EU organizations (European Union under FP6-2005-SCIENCE-AND-				
2007					
	SOCIETY-13 programme)				
·	o Contribution to the design and implementation of the interactive exhibition "Energy				
	and its transformation" and the educational laboratory "Layers of energy", as				
	contribution to the Esciential network from National Institute for the Physics of Matter (CNR-INFM, Italy);				
	o contribution to the coordination of the project and technical support				
2004					
2004 -	Esciential – European Science Festival (European Union under FP6-2002-				
2005	SCIENCEANDSOCIETY-2 programme)				
	o Contribution to the coordination and technical support for importing exhibits and				
	contributions from European Science centres/museums/institutions traditionally				
	active in science diffusion/popularisation towards society at large.				
2003 –	ENERGY-TECHNET- Multimedia on energy and on semiconductors for european				
2002	countries (European Union under FP5-HUMAN POTENTIAL Programme)				
	Design and development of educational interactive games and animations				

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