









The Water project was thought to unlock the research potential of the CNR-Catania in the application of nanotechnology to water treatment.

For the benefit of the economy, society and environment.





Water Team
The mission of CNR-Catania



The mission of CNR-Catania is to create a center of excellence for basic and applied research on advanced nanotechnology. The main aim is to

perform leading fundamental research in key areas for the technological development.

read more

Figure 1: The official WATER Project web site









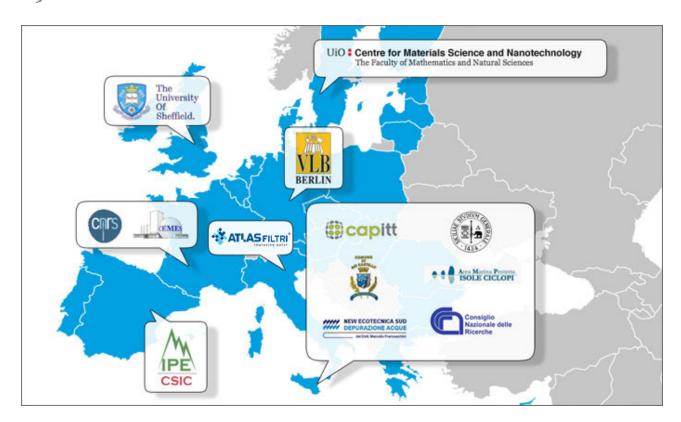


Figure 2: The WATER partners









### Kick off meeting OCTOBER 25-26, 2012

Villa Fortuna, Aci Trezza, Catania (Italy)

### **PROGRAM**

### October 25, 2012

9.00 Filippo Drago, Mayor of Aci Castello 9.30 Vittorio Privitera, Coordinator of WATER, Consiglio Nazionale delle Ricerche (CNR) 10.00 Corrado Spinella, Director of the Institute of Microelectronics and Microsystems - CNR

#### 10.30 Coffee break

11.00 Giuseppe Speciale, Irene Manganaro, Centro per l'aggiornamento delle professioni e per l'innovazione ed il trasferimento tecnologico – Università di Catania 11.20 Mariano Bortoletto, ATLAS Filtri

11.40 Marcello Franceschini, New Ecotecnica Sud

12.00 Transfer by boat to Lachea Island

12.30 Emanuele Mollica, Area Marina Protetta Isole Ciclopi

#### 13.30 Lunch

Session III 15.30 Roundtable with Italian partners

18.00 Concluding remarks

### October 26, 2012

#### Session IV

9.00 Lucia Romano, Giuliana Impellizzeri, Silvia Scalese, CNR - Italy

10.00 Bengt G. Svensson, University of Oslo - Norway

10.30 Caroline Bonafos, Centre national de la recherche scientifique - France

#### 11.00 Coffee break

11.30 Enrique Navarro, Consejo superior de investigaciones scientificas - Spain

12.00 Alfons Ahrens, Versuchs – und Lehranstalt für Brauerei – Germany 12.30 Christian Berretta, University of Sheffield – United Kingdom

### 13.00 Lunch

### Session V

15.30 Roundtable with foreign partners

18.00 Concluding remarks

Figure 3: Program of the Kick off meeting













Figures 4: Introduction of the Mayor of Aci Castello at the kick off meeting and the partners group









Il progetto europeo WATER, oltre alla definizione di una precisa strategia di ricerca di eccellenza, mira a promuovere la partecipazione delle professionalità locali ad iniziative europee. In questa ottica è strategicamente necessario prepararsi all'appuntamento con Horizon 2020.

L'obiettivo di questo convegno è di illustrare a vari livelli – regionale, nazionale ed europeo – il contesto in cui opererà il nuovo programma quadro europeo di finanziamento alla ricerca e le opportunità offerte ad Università, Enti di Ricerca e Imprese.

### **PROGRAMMA**

Ore 15:00 | Saluti

Antonio Insolia Direttore del Dipartimento di Fisica e Astronomia, Università di Catania

Introduzione

Vittorio Privitera Consiglio Nazionale delle Ricerche, Coordinatore del Progetto WATER

Interventi

Salvatore La Rosa MIUR - Dipartimento per l'Università, l'AFAM e la Ricerca Anna D'Amato Consiglio Nazionale delle Ricerche, Ufficio ARIE Filippo D'Arpa Distretto Tecnologico Sicilia Micro e Nano Sistemi Giovanni La Via Deputato Parlamento Europeo, Relatore Generale Bilancio UE

Ore 18:00 | Cocktail



Consiglio Nazionale delle Ricerche

Istituto per la Microelettronica e i Microsistemi Unità di Catania (Università) Via Santa Sofia, 64 I-95123 Catania, Italy www.matis.imm.cnr.it

Figure 5: Program of the Workshop HORIZON 2020 - Outlook and Opportunity











Figure 6: The WATER Coordinator introduces WATER at the workshop on H2020















# water

winning applications of nanotechnology for resolutive hydropurification

# WATER: Ricerca e Industria verso l'Europa 5 APRILE 2013

Grand Hotel Baia Verde, Aci Castello (Catania)

### PROGRAMMA

Sessione I Giuliana Impellizzeri, CNR

09:30 Filippo Drago, Sindaco di Aci Castello

10:00 Vittorio Privitera, CNR

10:30 Laura Vivani, Moverim

11:00 Pausa caffè

Sessione II Silvia Scalese, CNR

11:30 Antonio Perdichizzi, Confindustria Catania

12:00 Mariano Bortoletto, ATLAS Filtri

12:30 Marcello Franceschini, New Ecotecnica Sud

13:00 Francesco Maugeri Grasso, Fonte Nuova

13:30 Pranzo

Sessione III Lucia Romano, Università di Catania

15:00 Cristina Del Piccolo, Veolia Environnement

15:30 Carlo Campisano, HiTec2000 - ATS con GoldenStar Italia e CGS

16:00 Josephine Pace, Plastica Alfa

Figure 7: Program of the Workshop "WATER: Research and Industry towards Europe"















Figures 8: Two different moments of the workshop "Research and Industry towards Europe"











### Agenda for Giuseppe Suriani

WATER Project - IMM-CNR

Note: This is the preliminary meeting schedule!

The final meeting schedule (including last minute changes) will be handed over to you at the reception desk at the event!

### B2B Thursday | Session 2 | 14:00 - 16:30

TIME	TABLE	ORGANISATION / CONTACT PERSON	
14:15	23	$\label{eq:GENAPHORA-Kobi Inbar (Israel)} {\it Offer \& Request: WATER (Winning Applications of nanoTechnology for resolutive hydropurification)}$	Guest Booking
14:30	7	REDINN — Marco Rosa (Italy) Offer & Request: WATER (Winning Applications of nanoTechnology for resolutive hydropurification)	Guest Booking
14:45	7	Hidroquimia — Ángel Teno Santos (Spain) Offer & Request: WATER (Winning Applications of nanoTechnology for resolutive hydropurification)	Guest Booking
15:00	1	LEITAT-Technological Center — Joan ROIG (Spain) Offer & Request: WATER (Winning Applications of nanoTechnology for resolutive hydropurification)	Guest Booking

### **B2B Meetings**

Date	Begin	End	Title
07.11.2013	10:30	13:00	B2B Thursday   Session 1   10:30 - 13:00

### B2B Meetings (additional)

Date	Begin	End	Title
07.11.2013	14:00	17:00	B2B Thursday   Session 2   14:00 - 16:30

### AquaMatch Side Events

Date	gin End	Title
7.11.2013	7:00 18:00	Network drinks   17:00

Figure 9: B2B meetings of WATER in the AcquaMatch, a brokerage event in Amsterdam during the AquaTech, one of the most important fair in the world regarding the field of water











Figure 10: B2B meetings of WATER in the "Europe 2020 strategy for growth" conference









## June 11, 2013 WATER meeting

Sheraton Hotel, Aci Castello, Catania (Italy)

### PROGRAM

### Session I - Work packages CNR and University of Catania

9.00 Vittorio Privitera

9.15 Lucia Romano 9.30 Silvia Scalese

9.45 Giuliana Impellizzeri

10.00 Maria Grazia Grimaldi, Irene Manganaro

10.15 Giuseppe Suriani

#### Session II - Scientific contributions

10.30 Robert Carles, CNRS 10.45 Enrique Navarro, CSIC

11.00 Richard Collins, University of Sheffield

11.15 Coffee Break

### Session III - Scientific activity CNR and University of Catania

11.45 Silvia Scalese 12.00 Viviana Scuderi

12.15 Maria Antonietta Buccheri

12.30 Massimo Zimbone

12.45 Giuseppe Cacciato

13.00 Enrica Arcadipane

13.15 Lunch

Figure 11: Program of the first Steering Committee Meeting











Figure 12: Poster of the NANERGAME contest organized by WATER project













Figure 13: Finalists of the contest NANERGAME



Figure 14: Gadgets with the winner game of the contest











Figure 15: Lucia Romano (WP 2 leader) picked up the prize "Reach out Competition" at the EMRS Spring Meeting 2014, where she had the chance to advertise the WATER project during the prestigious Plenary session









water.imm.cnr.it water.imm.cnr.it





Figure 16: Advertising campaign carried out on the most important Italian TV and Radio channels, Newspapers and Magazines



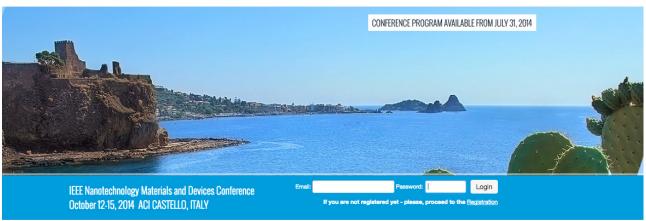








HOME ORGANIZERS & COMMITTEES PROGRAM YOUNG SCIENTIST AWARD LUNCH WITH PROF ABSTRACT / PAPER EXHIBITORS LOCATION PHOTO



IEEE-NMDC 2014 will be the 9th in an international series. In 2014 it will be hosted for the first time in Europe, in Aci Castello, a scenic sea town in Sicily, Italy.

IEEE-NMDC 2014 wants to be a forum of discussion about nanotechnology, with a special focus on materials and devices.

### Topics:

- IODICS:

  Graphene and carbon nanotubes based materials and devices

  Materials and devices for nanoelectronics

  Materials and devices for energy and environmental applications

  Materials and devices for energy and environmental applications

  Nanostructures for future generation solar cells

  Ion beam synthesis and modification of nanostructures

  Advanced characterization of nanomaterials and nanostructures

  Modeling and simulation of nanomaterials, structures, and devices

  Metamaterials and plasmonic devices

  Photonic materials and devices

  Organic semiconductor materials, devices and applications

  Nanostructures of oxide semiconductor materials

- · Nanostructures of oxide semiconductor materials

- Nanostructures of oxode semiconductor materials
   Ill-V semiconductors nanomaterials
   Nanostructures for water purification
   Nanomaterials and devices for biomedical applications
   Standards and safety issues of nanotechnology
   Fundamentals and applications of nanotubes, nanowires, quantum dots and other low dimensional materials

### News

LATEST NEWS

Watch the official video of the IEEE-NMDC 2014!



Figure 17: The web site of the IEEE Nanotechnology Materials and Devices Conference 2014 organized by the WATER project











### IEEE-NMDC 2014 in numbers / attendance

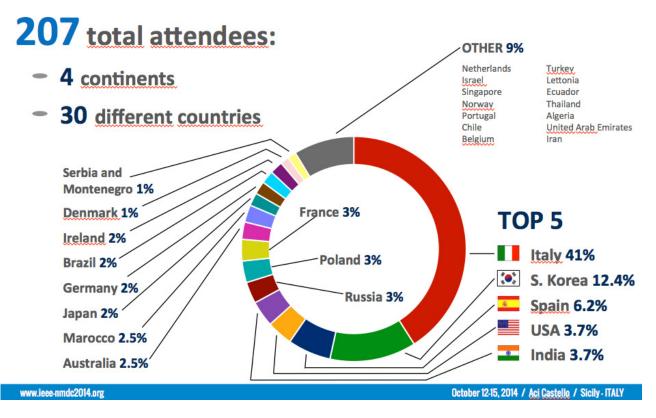


Figure 18: Key statistics of the IEEE-NMDC 2014













Figures 19: The opening and two parallel sessions of the IEEE NMDC 2014

















### Steering Committee Meeting

### **OCTOBER 16, 2014**

Department of Physics, University of Catania **PROGRAM** 

9.30	Vittorio Privitera, coordinator	Summary of last year activities	0:		
10.00	Lucia Romano, WP 2 leader	Reinforcement of human and technical capital	en Se		
10.15	Silvia Scalese, WP 3 leader		Steering Committee and		
	Bengt Svensson, partner	Twinning measures			
	Alfons Ahrens, partner		Advisory Board		
10.30	Giuliana Impellizzeri, WP 4 leader	Dissemination	meeting		
10.45	Maria Grazia Grimaldi, WP 5 leader	Intellectual property development and			
	Ruy Sanz, WATER researcher	management	- 91		
11.00	Coffee break and discussion				
12.00	Visit of the new lab.	On invitation			
13.00	Lunch	meeting			
15.00	Colombe Warin, EC Project Officer	Horizon 2020 and REGPOT expectations from the European Commission	Open meeting		

Figure 20: Program of the second Steering Committee Meeting











Figure 21: The Coordinator Vittorio Privitera and the former Project Officer Colombe Warin during the steering committee meeting











2 Dicembre 2014 Aula Magna, Dipartimento di Fisica e Astronomia Università di Catania Via Santa Sofia, 64

11.00 Saluto delle Autorità Universitarie 11.15 Vittorio Privitera, Coordinatore del Progetto

WATER 11.30

Luigi Nicolais, Presidente del CNR 12.00 Aperitivo 12.30 Visita del laboratorio WATER

6



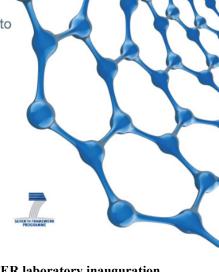


Figure 22: The program of the WATER laboratory inauguration









Figure 23: The ribbon cutting ceremony of the WATER Lab



Figure 24: A view of the new WATER Lab











Figures 25: The former president of CNR, Luigi Nicolais, visits the new WATER laboratory of the CNR









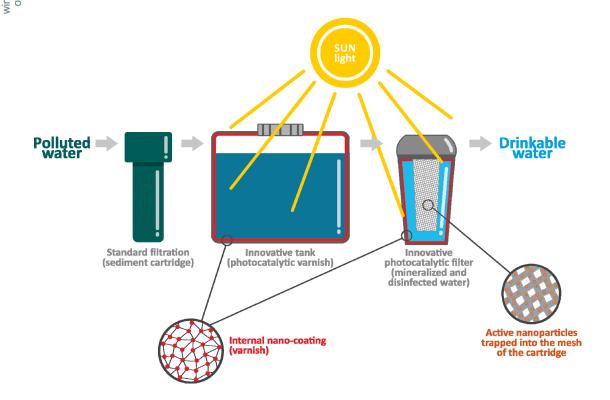


Figure 26: Diagram of the system for water potabilization developed with ATLAS Filtri within the WATER Project











### SYMPOSIUM B

Materials for applications in water treatment and water splitting

### Symposium Organizers:

Giuliana Impellizzeri, CNR-IMM, Catania, Italy

Anne Morrissey, Dublin City University, Ireland

Enrique Navarro, CSIC-IPE, Zaragoza, Spain

Bengt G. Svensson, University of Oslo, Norway

Published in Materials Science in Semiconductor Processing (Elsevier).







This symposium has been initiated under the auspices of the FP7 project WATER www.water.imm.cnr.it

Figure 27: The Symposium B "Materials for applications in water treatment and water splitting" of the 2015 E-MRS Spring Meeting organized by the WATER group











Figures 28: The Symposium B of the E-MRS Spring Meeting 2015









Figure 29: Symposium organizers during the E-MRS 2015 conference closing

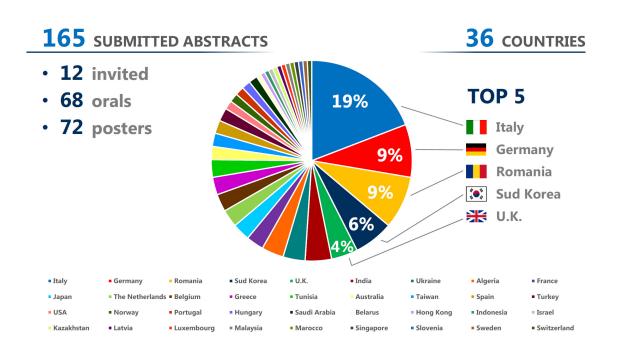


Figure 30: Country distribution of the attendees to the Symposium B, E-MRS 2015











Figure 31: Seminar on the WATER project organized by the Institute of Biomolecular Chemistry (ICB) of the CNR, Catania section









### AGENDA WATER MEETING, OCTOBER 2ND 2015

9.15			Opening		
9.30 WATER and new perspective		new	WATER final report	Vittorio Privitera,	
				WATER coordinator	
10.15			Nanocomposite Materials for Photocatalytic Degradation	Lucia Curri,	
			of Pollutants	LIMPID coordinator	
10.45			Coffee break		
11.15	WATER	scientific	Photocatalytic TiO2 nanotubes/polymer composites for	Ruy Sanz	
	reports		water treatment		
11.30			Improvement of the photocatalytic efficiency of	Viviana Scuderi	
			nanostructured TiO2: two years of results		
11.45			The dark side of the moon	Maria Antonietta	
				Buccheri	
12.00			Photocatalytic activity of ZnQ nanostructures	Alessandro Di Mauro	
12.15			Nanoparticles by laser ablation	Massimo Zimbone	
12.30			Carbon-based nanomaterials for water purification	Daniele <u>D'Angelo</u>	
12.45			Round table and open discussion		
13.15			Lunch		
14.30	WATER	scientific	Optical engineering of metal-TiO2 nanocomposite films	Giuseppe Cacciato	
	reports		for solar driven photocatalysis		
14.45			TiO2 nanowires for water purifications	Enrica Arcadipane	
15.00			Polymeric nanocomposites for water purification	Maria <u>Cantarella</u>	
15.15			Nanocomposite polymeric membranes for water	Simona Filice	
			purification		
15.30			Round table and open discussion		
16.00			Coffee break		
16.30			Concluding Remarks		
19.30			Social Dinner – bus pick up		

Figure 32: Program of the third Steering Committee Meeting









water.imm.cnr.it

### Aci Castello **Piazza Castello** 3 ottobre 2015 h 9,30 / 13,30



Festa della scienza e dell'acqua

Divertimento, scienza, prodotti, servizi e informazioni sul più importante patrimonio dell'umanità: l'acqua!

### Gli espositori

- Progetto WATER CNR Catania
- Comune di Aci Castello Area Marina Protetta Isole Ciclopi
- Atlas Filtri New Ecotecnica Sud Fonte Nuova Plastica Alfa

### Per i più piccoli

• area giochi e didattica con esperimenti, videogiochi, regalini • h 11,00: "Senza orecchie", spettacolo di e con Riccardo e Margherita (da una fiaba di Luigi Capuana)

### Per tutti

· angolo ristoro gratuito · gadget in omaggio



Consiglio Nazionale delle Ricerche Watel







Figure 33: October 3, 2015. The final event of the WATER project. A festival where people had the opportunity to know more on the "science of the water", while the kids had fun in a stand devoted entirely to them











Figure 34: Advertisement of the WATER Day on billboards



Figure 35: The entrance of the WATER Day, Festival of Science and Water













Figures 36: Meeting with the political representatives of Aci Castello to present and discuss the future perspectives regarding water resources. With the participation of Prof. Andrés Garcia Lorca, Spanish governor of Almeria













Figures 37: A great success, more than one thousand participants during the WATER Day











Figures 38: Other moments of the WATER Day











Figure 39: Space reserved to the WATER project in the Water Day Festival



Figure 40: Article published on "La Sicilia" newspaper (on October 4th, 2015)





Figure 41: Tweet of the Mayor of Aci Castello about the WATER Day festival











Figure 42: A post published in the Facebook fan page of the Municipality of Aci Castello about the WATER Day festival









### AGENDA OF THE VISIT OF PROF. JAGADISH TO CNR CATANIA, NOVEMBER 24-25 2016

Agenda		THE STATE OF THE S
Tuesday Nov. 24	9.00-11.00	Visit Lab. at Physics Dept. (WATER, etc)
	11.00-12.00	Seminar prof. <u>Jagadish</u> , room E (Physics Dept.)
	12.00-12.30	Meeting <u>Simona Boninelli</u>
	12.30-13.30	Meeting staff WATER
	13.30-15.00	Lunch
	15.00-15.30	Meeting Maria Cantarella
	15.30-16.00	Meeting Alessandro Di Mauro
	16.00-16.30	Meeting Ruy Sanz
	16.30-17.00	Meeting Massimo Zimbone
	19.30-20.30	Aperitif EPS young minds
Wednesday Nov.25	9.00-13.00	Visit Lab. CNR-IMM in ST Microelectronics
	13.00-14.00	Lunch
	14.00-15.00	Transfer to Physics Dept.
	15.00-15.30	Meeting Giuseppe Cacciato
	15.30-16.00	Meeting <u>Viviana</u> Scuderi
	16.00-16.30	Meeting Enrica Arcadipane
	16.30-17.00	Meeting Maria Antonietta Buccheri
	17.00-17.30	Meeting Adriana Scarangella
	17.30-18.00	Meeting Vicky Strano
	20.00	Dinner (Vittorio <u>Privitera</u> )

Figure 43: Agenda of the meetings with Prof. Jagadish







# Indian-origin physicist awarded Australia's highest civilian honour

Australia has awarded its highest civilian honour, the Companion of the Order or Australia (AC) to India-origin scientist and professor Chennupati Jagadish.

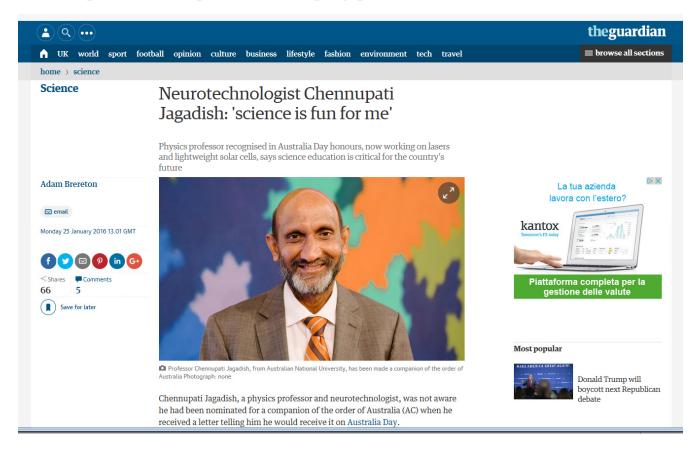


Figure 44: Prof. Jahadish has been recently awarded with the highest civilian honour in Australia for his bright contribution to science. WATER project is even more proud to have invited and hosted him in Catania













Figure 45: The WATER group in the new Laboratory

