



Environmentally Friendly Coastal Protection in a Changing Climate

PROJECT FINAL WORKSHOP

6th Project Consortium Meeting and 5th RESEARCH SEMINAR

21-22 April 2015

Seconda Università degli Studi di Napoli



SECONDA UNIVERSITÀ DEGLI STUDI DI NAPOLI

SCUOLA POLITECNICA E DELLE SCIENZE DI BASE

DIPARTIMENTO DI
INGEGNERIA CIVILE DESIGN
EDILIZIA E AMBIENTE

**Diego Vicinanza
(Project Coordinator)**

Funded under 7th FWP (Seventh Framework Programme)

Research area:

FP7-PEOPLE-2011-IRSES Marie Curie Action "International Research Staff Exchange Scheme"

www.envicop.eu

<http://www.2020-horizon.com/>

1 May 2012 – 30 April 2015

Total cost: EUR 227 200



EnviCOP aims:

Staff exchanges of ESR and ER (PhD students, Researchers and Professors)

Research activities on coastal protection in a changing climate.

Improving the knowledge/understanding on Coastal Zone:

- 1) Physical Processes
- 2) Innovative Defense
- 3) Environmental Impact Assessment
- 4) Integrated Management
- 5) Wave Energy



Seconda Università Degli Studi di
Napoli (unina2.it)

SUN
Napoli, Italy

EU
Coordinator



Università Politecnica delle Marche
(www.univpm.it)

UNIVPM
Ancona, Italy

EU



Politecnico di Milano
(www.polimi.it)

POLIMI
Milano, Italy

EU



Faculdade de Engenharia,
Universidade do Porto (www.fe.up.pt)

FEUP
Porto, Portugal

EU



Black Sea – Danube Coastal
Association for Research and
Development (bdcabg.org)

BDCA
Varna, Bulgaria

EU



Scripps Institution of Oceanography
(scripps.ucsd.edu)

SIO
California, Usa

Non EU



Universidade do Vale do Itajaí
(www.univali.br)

UNIVALI
Santa Catarina, Brasil

Non EU



WP 1 Exchange of researchers

Task 1.1: Sea-level rise and Hydrodynamics of Coastal Zone

Task 1.2: Dune erosion protection & Shoreline management

Task 1.3: Artificial Reefs & Beach nourishment

Task 1.4: Beach Drainage system as a littoral stabilization

Task 1.5: Coastal protection combined with Wave energy utilisation

WP 2 Joint Research Seminars (5 Seminars)

WP 3 Networking

Task 3.1: Exchange of knowledge and know-how

Task 3.2: Electronic networking (Project web-site, Data Base)

WP 4 Dissemination

Task 4.1: Dissemination of best practices

Task 4.2: Final conference in Naples, Italy (All Tasks)

WP 5 Coordination activities, Communications



Staff Exchange



FEUP @ UNIVALI



UNIVPM, POLIMI @ SIO



SUN @ SIO



SUN, POLIMI @ SIO



POLIMI @ SIO



FEUP @ SIO



PARTICIPANT NUMBER	ORIGIN PARTNER	ORIGIN COUNTRY	HOST PARTNER	HOST COUNTRY	SECONDED TYPE	DURATION (MONTHS)	STARTING MONTH	YEAR 1												YEAR 2												YEAR 3											
								1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
								1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
1	SUN	ITALY	SIO	USA	ER1	2	10																																				
1	SUN	ITALY	SIO	USA	ESR1	2	15																																				
1	SUN	ITALY	UNIVALI	BRAZIL	ER1	2	18																																				
1	SUN	ITALY	UNIVALI	BRAZIL	ER1	1	26																																				
1	SUN	ITALY	SIO	USA	ER11	2	30																																				
2	UNIVPM	ITALY	SIO	USA	ER8	2	10																																				
2	UNIVPM	ITALY	SIO	USA	ESR15	3	10																																				
2	UNIVPM	ITALY	UNIVALI	BRAZIL	ER9	3	16																																				
2	UNIVPM	ITALY	SIO	USA	ER8	1	28																																				
3	POLIMI	ITALY	SIO	USA	ER10	2	10																																				
3	POLIMI	ITALY	SIO	USA	ER10	2	18																																				
3	POLIMI	ITALY	UNIVALI	BRAZIL	ESR16	1	27																																				
4	FEUP	PORTUGAL	UNIVALI	BRAZIL	ER2	1	6																																				
4	FEUP	PORTUGAL	UNIVALI	BRAZIL	ESR3	6	6																																				
4	FEUP	PORTUGAL	SIO	USA	ESR4	6	12																																				
4	FEUP	PORTUGAL	UNIVALI	BRAZIL	ER2	2	23																																				
4	FEUP	PORTUGAL	UNIVALI	BRAZIL	ESR5	6	23																																				
5	BDCA	BULGARIA	UNIVALI	BRAZIL	ER3	2	12																																				
5	BDCA	BULGARIA	UNIVALI	BRAZIL	ESR6	6	12																																				
5	BDCA	BULGARIA	SIO	USA	ESR7	6	18																																				
5	BDCA	BULGARIA	UNIVALI	BRAZIL	ER4	2	29																																				
5	BDCA	BULGARIA	UNIVALI	BRAZIL	ESR8	6	29																																				
6	SIO	USA	SUN	ITALY	ER5	2	19																																				
6	SIO	USA	SUN	ITALY	ESR9	2	21																																				
6	SIO	USA	UNIVPM	ITALY	ER5	3	13																																				
6	SIO	USA	POLIMI	ITALY	ER5	3	16																																				
6	SIO	USA	FEUP	PORTUGAL	ESR10	3	29																																				
6	SIO	USA	BDCA	BULGARIA	ESR10	4	32																																				
7	UNIVALI	BRAZIL	BDCA	BULGARIA	ER56	2	7																																				
7	UNIVALI	BRAZIL	FEUP	PORTUGAL	ESR11	9	10																																				
7	UNIVALI	BRAZIL	SUN	ITALY	ESR12	2	16																																				
7	UNIVALI	BRAZIL	UNIVPM	ITALY	ESR12	2	31																																				
7	UNIVALI	BRAZIL	POLIMI	ITALY	ESR12	1	33																																				
7	UNIVALI	BRAZIL	BDCA	BULGARIA	ESR13	5	22																																				
7	UNIVALI	BRAZIL	FEUP	PORTUGAL	ER7	2	28																																				
7	UNIVALI	BRAZIL	BDCA	BULGARIA	ESR14	3	31																																				



	Partner	Outgoing	Incoming
1	SUN	9	6
2	UNIVPM	9	5
3	POLIMI	5	4
4	FEUP	21	14
5	BDCA	22	14
6	SIO	17	27
7	UNIVALI	26	39
TOTAL		109	109

	Partner	ESR	ER	TOTAL
1	SUN	1	2	3
2	UNIVPM	2	2	4
3	POLIMI	1	1	2
4	FEUP	3	1	4
5	BDCA	3	2	5
6	SIO	2	1	3
7	UNIVALI	4	2	6
TOTAL		16	11	27

	Sends (m/m)	Receives (m/m)
EU	66	43
Third countries	43	66

Task	Man/Months		
	ESR	ER	Total
1.1	17	16	33
1.2	15	4	19
1.3	15	4	19
1.4	18	3	21
1.5	9	8	17
TOTAL	74	35	109



Seminars and workshops

1st Project meeting

(July 2012, Milano, Italy)

Attendees:

- Prof. Diego Vicinanza (coordinator, SUN);
- Prof. Francisco Taveira Pinto (FEUP);
- Prof. Maurizio Brocchini (UNIVPM);
- Prof. Arianna Azzellino (POLIMI);
- Prof. Valeri Penchev (BDCA);
- Dr. Luca Centurioni (SIO);
- Prof. Marcus Polette (UNIVALI).





Seminars and workshops

2nd Project meeting | 1st Research seminar Sea-level rise and Hydrodynamics of Coastal Zone (June 2013, Lisbon, Portugal)

Attendees:

- Prof. Vincenzo Ferrante (representing the coordinator, SUN, representing also UNIVPM and SIO);
- Prof. Francisco Taveira Pinto (FEUP);
- Prof. Valeri Penchev (BDCA);
- Dr. Silvia Stoyanova (BDCA);
- Dr. Caterina Lanfredi (POLIMI);
- Prof. João Luiz Baptista de Carvalho (UNIVALI).



SCACR

Short Course/Conference on Applied Coastal Research





Seminars and workshops

3rd Project meeting | 2nd Research seminar

Coastal protection combined with Wave Energy utilization

(October 2013, Aversa, Italy)

Attendees:

- Prof. Diego Vicinanza (coordinator, SUN);
- Prof. Francisco Taveira Pinto (FEUP);
- Prof. Valeri Penchev (BDAC);
- Dr. Luca Centurioni (SIO);
- Dr. Raquel Silva (FEUP);
- Dr. Vincenzo Ferrante (SUN);
- Dr. Matteo Postacchini (UNIVPM);
- Dr. Caterina Lanfredi (POLIMI);
- Dr. Serap Cevirgen (POLIMI).





Seminars and workshops

4th Project meeting | 3rd Research seminar

(April 2014, Porto, Portugal)

Attendees:

- Prof. Corrado Gisonni (representing the coordinator, SUN)
- Prof. Francisco Taveira Pinto (FEUP);
- Prof. Valeri Penchev (BDAC);
- Prof. Luciana das Neves (FEUP);
- Dr. Caterina Lanfredi (POLIMI);





Seminars and workshops

5th Project meeting | 4th Research seminar

(October 2014, Varna, Bulgaria)

Attendees:

- Prof. Vincenzo Ferrante (representing the coordinator, SUN, representing also UNIVPM and SIO);
- Prof. Francisco Taveira Pinto (FEUP);
- Prof. Valeri Penchev (BDAC);
- Dr. Caterina Lanfredi (POLIMI);





Publications

2013

Lanfredi C., Azzellino A., Centurioni L., Vicinanza D. 2013 A Spatial Planning Approach To Coastal Management: The Case Of Marine Renewable Energy Installations. 6th SCACR – International Short Course/Conference on Applied Coastal Research, Lisbon 4-7 June.

Azzellino A., Ferrante V., Kofoed J.P., Lanfredi C., Vicinanza D. 2013. A Marine Spatial Planning Framework to Analyse the Opportunity to Combine Wind And Wave Energy. 10th EWTEC European Wave and Tidal Energy Conference Series, Aalborg 2-5 September.

2014

Azzellino, A., Cevirgen, S., Polette, M., Vicinanza, D. 2014. Multivariate analysis of pressures and driving factors affecting the environmental status of the Rio de Janeiro coastal zone. Proceedings of the 3rd International Association of Hydraulic Engineering & Research (IAHR) European Congress, ISBN 978-989-96479-2-3, Porto, Portugal.

Ferrante, V., Contestabile, P., Polette, M., Azzellino, A., Centurioni, L., Vicinanza, D. 2014. Wave energy potential along the coast of Ischia island (South Italy). 5th International Conference Coastlab14, Varna, Bulgaria.

Ferrante, V., Polette, M., Vicinanza, D. 2014. Wave energy potential along the coast of Santa Catarina (Brazil). Proceedings of the 3rd International Association of Hydraulic Engineering & Research (IAHR) European Congress, ISBN 978-989-96479-2-3, Porto, Portugal.

Lanfredi, C., Azzellino, A., Centurioni, L., Vicinanza, D. 2014. Optimal siting for marine renewables energy installations along the Californian coast using a marine spatial planning approach. 5th International Conference Coastlab14, Varna, Bulgaria.



2014

Riefolo, L., Contestabile, P., Ferrante, V., Azzellino, A., Centurioni, L., Vicinanza, D. 2014. The role of spectral wave components, bandwidth and wave grouping on runup: preliminary results from large-scale experiments. 5th International Conference Coastlab14, Varna, Bulgaria.

Taveira-Pinto, F., Vicinanza, D., Penchev, V., Ferrante, V., Silva, R. 2014. Review of hydraulic performance studies on detached breakwaters. Proceedings of the 3rd International Association of Hydraulic Engineering & Research (IAHR) European Congress, ISBN 978-989-96479-2-3, Porto, Portugal.

2015 in progress

Postacchini, M., Centurioni, L., Braasch, L., Brocchini, M., Vicinanza, D. (in press). Lagrangian Observations of Waves and Currents from the River Drifter. IEEE Journal of Oceanic Engineering, ISSN 0364-9059.

Polette, M., Silva, R., Marenzi, R., Taveira Pinto, F. Comparative analysis of coastal use management between Brazil and Portugal (submission).

WP 1 Exchange of researchers: completed 92% SUCCESS

WP 2 Joint Research Seminars: completed 100% SUCCESS

WP 3 Networking: completed 100% SUCCESS

WP 4 Dissemination: completed 100% SUCCESS

WP 5 Coordination activities, Communications: completed 100% SUCCESS

Thank you to all partners for the successful project !!!!